

County Council of Stirling.



# ANNUAL REPORT

(for the Year 1924)

TO THE

COUNTY COUNCIL & DISTRICT COMMITTEES.

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Annual Report to the Town Councils of  
Bridge of Allan and Denny and Dunipace.

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BY

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STIRLING :

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1925



## NOTE.

There is little of outstanding importance in the present Report. The death-rates continue low, but are somewhat higher on the whole than they have been for several years. On the other hand, the number of notifications of infectious diseases are rather less than the average of the past ten years, notwithstanding a considerable prevalence of scarlet fever in some parts of the Eastern District.

The new Co-ordinated Scheme of Medical and Nursing Services, which has been in operation since the beginning of 1924, has worked very smoothly, and has given every satisfaction.

County Buildings,  
Stirling, August, 1925.

The Scottish Board of Health, in virtue of their powers under the Public Health (Scotland) Act, 1897, require Medical Officers of Health each to prepare annually a Report with regard to his area, and in a circular dated 30th December, 1924, the Board stipulate that it shall contain :—

- a. A general account of influences and conditions injurious or dangerous to the health of the district, and of the measures that in his opinion should be adopted for its improvement.
- b. A statement of the general enquiries he has made during the year, and of any special enquiries as to sanitary matters.
- c. A general statement of any matters as to which he has given advice or granted certificates, including any action as to offensive trades.
- d. A specific account of the administration of the Factory and Workshop Act, 1901, in workshops and workplaces, in terms of Section 132 of that Act, together with a tabular statement in the form required by the Home Office. Special attention is directed to the Board's Circular of 14th November, 1921, regarding Sections 61, 97-100, 109, and 110 of the Act.
- e. An account of any proceedings under the Housing (Scotland) Acts, 1890-1924, dealing specifically with (1) the sufficiency of working-class dwellings, (2) the habitability of existing dwellings and the action taken to deal with defective or uninhabitable dwellings, (3) any scheme under consideration or contemplated for the improvement of insanitary areas under Parts. I. and II. of the Housing of the Working Classes Act, 1890, and (4) the action taken where instances of overcrowding have been ascertained or suspected.
- f. A statement showing whether any conditions have arisen or are expected to arise pointing to the expediency of a town-planning scheme for the proper control of further development.
- g. An account of the presence or absence of pollution of rivers or streams in the district, the sources and nature of any such pollution, and any action taken to check it.
- h. An account of the hospital accommodation available for persons suffering from infectious disease in general and smallpox in particular (including the means provided for the conveyance of such persons), and of the houses of reception, with observations on the furnishing, mainten-

ance, administration, and adequacy of such accommodation, etc.

- i. An account of the premises with necessary apparatus and attendance available for the destruction or disinfection of infected articles (including the means for the conveyance and return of such articles), also of other processes of disinfection in use, with observations on the adequacy of such arrangements and processes.
- j. An account of the action taken to prevent the outbreak and spread of infectious disease.
- k. A statement of any action taken (a) for the control of acute primary pneumonia, acute influenzal pneumonia, malaria, dysentery and trench fever, under the Public Health (Pneumonia, Malaria, Dysentery, &c.) Regulations (Scotland), 1919, and (b) with regard to "carriers" under the Public Health (Infectious Disease Carriers) Regulations (Scotland), 1921.
- l. A statement of the facilities available for the treatment of persons suffering from venereal diseases, with recommendations as to any further measures that might usefully be taken for dealing with these diseases in the Local Authority's area.
- m. A statement as to the causes, origin, and distribution of diseases within the district, and the extent to which the same have depended on or have been influenced by conditions capable of removal or mitigation.
- n. A statement of the measures adopted for the administrative control of tuberculosis, with recommendations as to any further measures that might usefully be put in force by the Local Authority. (In cases where this work is being undertaken by the County Council in terms of Sec. 41 (3) of the National Insurance Act, 1913, the information under this heading should be given by the County Medical Officer.)
- o. A statement of the arrangements made and work performed under the Scheme of maternity service and child welfare, and of other relevant particulars in the form appended to this circular. Medical Officers of Health of Local Authorities that have no scheme of maternity service and child welfare or that are members of Combination Authorities for maternity service and child welfare in terms of the Notification of Births (Extension) Act, 1915, need not furnish the particulars in the appended statement except under headings 1-4 inclusive.

- p. A report on the working of the Notification of Births Act, 1907. (This applies to areas where a scheme of maternity service and child welfare has not yet been carried into operation.)
- q. An account of any action taken under the Dairies, Cowsheds and Milkshops Orders, the Milk and Dairies (Amendment) Act, 1922, the Milk (Special Designations) Order (Scotland), 1923, and the Condensed Milk Regulations, 1923, and the Dried Milk Regulations, 1923. It should be noted (1) that the approval of the Board is required to the arrangements made by local Authorities before any licences for the sale of graded milk are issued, and (2) that, in terms of Article 7 of the Condensed Milk and Dried Milk Regulations, certain infringements are to be reported to the Board. The Annual Report should also contain a list of the names and addresses of those persons to whom new licenses for the sale of graded milk have been granted during the year.
- r. An account of the work done under Section 43 of the Public Health (Scotland) Act, 1897, for the inspection of meat and other articles of food; observation on unsound food, food inspection, and the sanitary condition of premises where foods are manufactured, prepared, stored, or exposed for sale, indicating any important respects in which existing powers have been found inadequate for dealing with insanitary conditions in such places. A separate Return dealing with inspections at Slaughter-houses under the Public Health (Meat) Regulations (Scotland), 1924, is being called for.
- s. A report on the work done by the Local Authority under the Sale of Food and Drugs Acts, with observations on any special questions which have received or require attention.
- t. An account of any proceedings under the Rag Flock Act, 1911.
- u. A tabular statement, in such form as the Scottish Board of Health may from time to time direct, (1) of the cases of infectious disease notified in the district, and (2) of the infantile mortality within the district. Where the Medical Officer of Health has information shewing the number of cases of infectious disease occurring in houses of different sizes he should record it in tabular form under this heading.



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# REPORT.

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## METEOROLOGICAL RECORDS.

Again I am indebted to Mr Ballantine for a copy of his carefully kept notes on the weather at Laurieston.

At the commencement of his notes he points out that, notwithstanding the general impression that the year just ended has been an excessively wet one, the rainfall for the year is fully three inches less than last year, and turns out to be just exactly the average fall of the district. Although the fall in several months, such as May, September, and December was greatly in excess of the average fall of these months, the dry periods in February, March, April, and November more than counter-balanced the wet months, so that the total has come out as above, an ordinary average fall. The number of days on which rain fell are seventeen less than last year, but that also is accounted for by the dry spell referred to.

### The Weather Each Month.

“ January.—In striking contrast to the damp and fog of Hogmanay, the New Year opened bright and clear, with crisp frost, making an ideal day for a holiday. Ere evening, however, the frost gave way, and the previous stormy weather returned. The month throughout was very changeable, oscillating between mildness and severe spells of frost, rain and snow. The temperature of the month was low, but after the 18th it became milder, owing to the prevalence of westerly and south-westerly winds. The month also was dull; on many days the sun never broke through the dullness. In the end of the month the barometer stood fairly high, but it did not bring dry weather, on account of the moisture-laden winds from the West.

“ February. — In contrast to the ‘ fill dyke ’ reputation long associated with this month, its weather this year went to the other extreme, and has constituted a record for dryness that has not been experienced in February for many years. The total rainfall for the month was only .78, with nine wet days, as compared with a fall of 4.38 inches and 22 wet days in 1923. There were slight showers from the first of the month till the 13th, after which a fine, dry period, with little frost, set in, continuing without a break to the second last day of the month. This period was accompanied by high barometric readings, reaching its maximum.

at 31.60 inches. The month would have gone out calmly but for its extra day in leap year. A violent disturbance took place between the evening of the 28th and morning of the 29th, the barometer dropping  $1\frac{1}{2}$  inches during the night, with the result that a perfect hurricane was raging in the morning, continuing with great fury all day, so that the otherwise fine month departed in the wildest of weather.

“ March. — Following in the wake of this storm, March entered sufficiently ‘ lion-like,’ but after the first day the nature of its weather throughout was almost continuously ‘ lamb-like.’ The first three weeks in March provided an example of the tendency of the weather to run in spells or moods, which generally continues for a lengthened period at a time. On the 10th of the month, after a long and monotonously wet period, the weather changed into a dry mood, which, with the exception of five days, continued through the rest of the month. The first part of the month, though dry, was rather cold, there being frequent frosts overnight; but the bright sunshine later in the day produced a decided warmth in the afternoons. The winds were generally westerly, veering southward and easterly in the second week, when there were also frequent calms. There was plenty of March dust on the ground, but the breezes required to whirl it about were, for the most part, absent. This month had the fewest wet days of any month in the year.

“ April.—The very dry period experienced in February and March came to an end about the middle of April, when the dry spell was broken. Rain fell on the 14th and 15th. This was followed by a few days of fine weather at Eastertide, Easter Monday being exceptionally bright and warm. This pleasant spell was, however, of short duration. On the 26th the barometer suddenly dropped an inch, and another rainy period began, which lasted all through the next month.

“ May.—The ‘ merrie month of May,’ instead of its usual bright and sunny character, was dull, wet and disappointing. It proved to be the second wettest month of the year, running closely on the heels of December. Although there were good spells of east wind, they did not on this occasion bring the usual dryness usually associated with east winds. The rainfall of May exceeded by nearly two inches the combined amounts of the three previous months. It was the excessive rain that made this month most remarkable. The nearest approach to similar conditions was in 1906. Owing to the cloudy skies and want of sunshine, the month was rather cool, the temperature varying very little between night and day.

“ June.—June opened with good promise, the first four days being delightfully summer-like, with very light east wind. Soon after this the wind changed to the south, and a period of thundery, unstable weather set in, with continuous rain each day until the 12th. Thereafter a week of good summer weather intervened, and the remainder of the month was made up of good and bad days alternately. The 7th was the warmest day of the month. The temperature in the first part of the month was low, and although the latter part showed a decided advance, the month, as a whole, was by no means warm.

“ July. — July was changeable and showery, with occasional good days intermingled. Excepting eight days, from the 17th to 24th, which were good, any showers falling then being very light, less or more rain fell on all the others, exceeding by about an inch the rainfall of June. The month was also deficient in warmth and sunshine. The only really warm day was the 12th, but it was the precursor of a violent thunderstorm, that broke out in the evening. There was no spell of heat, such as occurred in the early part of July last year, but the mean temperature of the month did not come near genial summer heat.

“ August.—The unstable, wet, cold weather of the previous three months was continued in August. Lammas Day brought quite a Lammas flood, and was clearly the worst day of the month, not only in this district, but over the country generally. The next day with a rising barometer showed signs of summer-like weather, but, unfortunately, soon after, unsettled conditions again returned, and continued throughout the month. There were also some thunder storms, with heavy rains. In respect of bright sunshine, the month was deficient, and although the weather was not cold, there was great absence of real genial summer heat. Westerly or south-westerly winds were the most prominent throughout the month.

“ September.—September began well, and for the first six days gave promise of fine autumn weather, but the change for the better was once more of short duration, as after the 7th the former unsettled conditions of the previous month returned, and a rain spell of 17 days in succession continued until the 25th. Thereafter three bright sunny days intervened, and the last two were recorded as wet. September of this year was a very bad harvest month, and in respect of its rainfall it is almost identical with the same month last year, both as to the amount of rain and the number of days on which rain fell.

“ October.—The rainy spell experienced in the two previous months was continued in October. Although the fall is an inch less than in September, the number of wet days was exactly the same. Though the rain was continuous the amount falling (except on three occasions) was not excessive, and, notwithstanding the frequent wet, there were several good October days. Even on these days, however, there were none of the fine, drying north-west winds usually associated with this month. The absence of these winds brought the fog season earlier in the year than usual. The very light winds and calms that occurred in the early part of the month, together with the dampness of the ground, and decaying vegetable matter, were all contributory factors to the existence of fog at this time. Its silent presence disarranged and held up the movement of all traffic, and on the 14th and 15th of the month this dangerous element of nature became so dense in this district that it put a complete stop to the movement of all vehicular traffic early in the afternoons and evenings.

“ November was ushered in with a very low barometer, accompanied by heavy rain on the first two days. This was a continuation of the rainy spell at the end of the previous month. Thereafter a speedy rise of the mercury took place, and a dry period of fine genial weather followed, continuing on till the 20th of the month. Had it not been for a heavy shower that fell on the forenoon of the 11th (Armistice Day) this period would have ranked as a ‘dry spell,’ which is defined as a succession of fifteen days on which no rain is recorded. From the 21st the barometer fell steadily from its former high readings in the dry period, causing a return to wet weather, which continued daily till the end of the month. Notwithstanding its wet ending the month was much drier than any of the six that preceded it. It also ranks as the fourth driest month of the year. Frost occurred on several mornings during the dry spell, followed by bright, warm sunshine during the day, so that the month as a whole was decidedly mild. The direction of the wind during this period was mostly east, veering to the south-east and west in the rainy spell.

“ December.—The rainy weather in the end of November was continued with steady persistence throughout almost the whole of December. Up till the 22nd of the month, the rainfall though regular was not large, the bulk of the fall for the month taking place in the last ten days. After the first storm on the night of the 22nd and morning of 23rd, two good days intervened, Christmas Day being favoured with very pleasant weather. The barometer then suddenly

dropped to the lowest point touched in the year, and a series of violent gales with heavy rain, sleet, and snow followed each other till the end of the month. Over three inches of rain fell during the last eight days of the month, the heaviest fall being on the 29th. This abnormal weather in the end of the month makes December the wettest and wildest month of the year. The first part was fairly mild, but the latter end was decidedly cold."

Figures referring to the monthly rainfall have also been received from the observers at various stations throughout the County, and these are given in Table I. Mr Stirling of Gargunnoch has noted on his records that the last month of the year was the wettest December experienced in the last 33 years.



Table 1.—RAINFALL DURING 1924.

| STATION.                     | OBSERVER.               | RAIN GAUGE. |                      |                         | 1924 |      |      |       |      |       |       |      |       |      |      |       | Total. |
|------------------------------|-------------------------|-------------|----------------------|-------------------------|------|------|------|-------|------|-------|-------|------|-------|------|------|-------|--------|
|                              |                         | Diameter.   | Height above Ground. | Height above Sea-level. | Jan. | Feb. | Mar. | April | May. | June. | July. | Aug. | Sept. | Oct. | Nov. | Dec.  |        |
|                              |                         | in.         | ft. in               | ft.                     |      |      |      |       |      |       |       |      |       |      |      |       |        |
| Laurieston, Falkirk, ..      | W. Ballantine, Esq.,    | 5           | 1 3                  | 133                     | 3.10 | .78  | .98  | 1.81  | 5.80 | 2.23  | 3.06  | 3.23 | 4.40  | 3.05 | 2.58 | 5.80  | 36.82  |
| Buckieburn Reservoir, ..     | Chas. Massie, Esq.,     | 8           | 1 0                  | 825                     | 15   | 9    | 6    | 11    | 24   | 15    | 20    | 23   | 21    | 21   | 12   | 22    | 199    |
| Do. Filters, ..              | Do.                     | 8           | 1 0                  | 760                     | 6.39 | .68  | 1.14 | 2.48  | 6.37 | 2.67  | 4.47  | 4.82 | 6.49  | 4.16 | 4.11 | 7.44  | 51.22  |
| Little Denny Filters, ..     | Do.                     | 8           | 1 0                  | 243                     | 6.62 | .70  | 1.15 | 2.56  | 6.80 | 2.81  | 4.81  | 5.25 | 6.87  | 4.40 | 4.32 | 7.79  | 54.08  |
| Do. Reservoir, ..            | Do.                     | 8           | 1 0                  | 325                     | 4.25 | .60  | 1.10 | 2.00  | 5.55 | 2.46  | 3.97  | 3.00 | 5.45  | 3.55 | 4.28 | 6.75  | 43.26  |
| Faughlin Reservoir, ..       | Do.                     | 8           | 1 0                  | 707                     | 4.40 | .70  | 1.16 | 2.20  | 5.55 | 2.60  | 4.00  | 3.22 | 5.50  | 8.75 | 4.16 | 7.95  | 45.19  |
| Earlshurn Reservoir, ..      | Do.                     | 8           | 1 0                  | 1202                    | 5.80 | .75  | 1.40 | 2.80  | 6.70 | 3.50  | 5.65  | 4.86 | 7.12  | 3.85 | 6.95 | 8.75  | 88.13  |
| Lea, Bridge of Allan, ..     | Laurence Pullar, Esq.,  | 5           | 1 0                  | 80                      | 4.10 | .80  | .98  | 2.37  | 5.20 | 1.82  | 3.89  | 3.59 | 4.34  | 3.50 | 2.66 | 7.04  | 40.36  |
| Waterworks, Touch, No. 1, .. | And H. Goudie, Esq.,    | 8           | ..                   | 700                     | 6.24 | .97  | 1.41 | 3.28  | 6.72 | 2.53  | 5.03  | 3.38 | 6.67  | 4.39 | 4.14 | 10.81 | 55.52  |
| Do. Do. No. 2, ..            | Do.                     | 8           | ..                   | ..                      | 6.05 | .96  | 1.43 | 3.21  | 6.49 | 2.38  | 5.14  | 3.14 | 6.59  | 4.11 | 4.03 | 9.83  | 53.45  |
| Gargunnoch House, ..         | C. Stirling, Esq.,      | 5           | 1 6                  | 83                      | 17   | 9    | 5    | 12    | 21   | 14    | 19    | 17   | 20    | 13   | 13   | 20    | 183    |
| Arngomey, .. ..              | Mr. P. McCowan,         | 5           | 1 6                  | 150                     | 5.36 | .60  | 1.72 | 3.06  | 6.17 | 1.74  | 4.50  | 3.14 | 6.03  | 3.54 | 3.63 | 10.66 | 50.15  |
| Mugdock Res'vr, St'blane, .. | J. R. Sutherland, Esq., | ..          | ..                   | 320                     | 3.99 | 1.63 | .77  | 2.79  | 5.50 | 2.17  | 5.30  | 4.58 | 5.96  | 3.61 | 3.58 | 9.04  | 48.92  |
| Head of Duchray Valley, ..   | Do.                     | ..          | ..                   | 1500                    | 17   | 10   | 6    | 14    | 24   | 11    | 20    | 22   | 21    | 18   | 8    | 22    | 196    |
|                              |                         | ..          | ..                   |                         | 5.25 | 1.24 | .60  | 2.95  | 5.05 | 2.90  | 4.75  | 5.00 | 4.05  | 3.55 | 4.80 | 7.10  | 47.20  |
|                              |                         | ..          | ..                   |                         | 7.80 | 2.50 | .85  | 4.60  | 7.90 | 5.90  | 11.50 | 7.40 | 11.20 | 7.40 | 8.80 | 15.95 | 91.80  |



## VITAL STATISTICS.

**Population.**—The population of the County, as estimated by the Registrar-General, is 78,270, made up as follows:—Central District, 26,822; Eastern District, 40,042; and Western District, 11,406. Each of these shows a decrease as compared with the Census of 1921. It is more than probable, however, that the figures are considerably underestimated, and I rather think that the actual population of the County would show an appreciable increase on the Census figures. In 1921 the population of the County (Landward) area was 81,034, and in my opinion the figure now will at least not be less than 82,000. Table II. gives the last Census details.

**Births and Birth-Rates.** — The number of births in the County was 1853, the number in 1923 being 1852. The birth-rate was 23.7, and is practically the same as that for 1922 and 1923. In the Central District there is a slight increase in the birth-rate as compared with the last two years, and in the Western District there is a slight decrease, while in the Eastern District the rates for the past three years are practically similar. Table III. gives the figures for the three Districts for the past six years.

**Table II.—POPULATION OF THE COUNTY OF STIRLING,  
AS ASCERTAINED AT THE CENSUS OF 1921.**

| PARISH                  | AREA IN ACRES |         |           | POPULATION  |         |           |             |         |           |
|-------------------------|---------------|---------|-----------|-------------|---------|-----------|-------------|---------|-----------|
|                         |               |         |           | CENSUS 1911 |         |           | CENSUS 1921 |         |           |
|                         | Total         | Burghal | Land-ward | Total       | Burghal | Land-ward | Total       | Burghal | Land-ward |
| CENTRAL DISTRICT.       |               |         |           |             |         |           |             |         |           |
| Denny                   | 8,276         | 368     | 7,908     | 9,166       | 3,853   | 5,313     | 9,187       | 5,130   | 5,871     |
| Dunipace                | 5,593         | 112     | 5,481     | 1,936       | 1,311   | 625       | 1,814       |         |           |
| Gargunnoch              | 9,862         | —       | 9,862     | 573         | —       | 573       | 586         | —       | 586       |
| Kilsyth                 | 13,123        | 280     | 12,843    | 11,052      | 8,106   | 2,946     | 10,364      | 7,600   | 2,764     |
| Kippen                  | 11,268        | —       | 11,268    | 1,365       | —       | 1,365     | 1,518       | —       | 1,518     |
| Logie                   | 9,096         | 774     | 8,322     | 4,373       | 3,121   | 1,252     | 5,105       | 3,579   | 1,526     |
| St Ninians              | 37,543        | —       | 37,543    | 13,868      | —       | 13,868    | 14,812      | —       | 14,812    |
| Stirling                | 1,825         | 1,377   | 448       | 21,461      | 21,200  | 261       | 21,733      | 21,345  | 388       |
| Total for Central Dist. | 96 586        | 2,911   | 93,675    | 63,794      | 37,591  | 26,203    | 65,119      | 37,654  | 27,465    |
| EASTERN DISTRICT.       |               |         |           |             |         |           |             |         |           |
| Airth                   | 5,561         | —       | 5,561     | 1,515       | —       | 1,515     | 1,777       | —       | 1,777     |
| Falkirk                 | 15,111        | 1,680   | 13,431    | 42,423      | 33,574  | 8,849     | 42,762      | 33,308  | 9,454     |
| Grangemouth             | 8,046         | 1,057   | 6,989     | 19,470      | 10,219  | 9,251     | 18,708      | 9,723   | 8,985     |
| Larbert                 | 3,971         | —       | 3,971     | 12,984      | —       | 12,984    | 12,389      | —       | 12,389    |
| Muiravonside            | 7,964         | —       | 7,964     | 5,706       | —       | 5,706     | 5,758       | —       | 5,758     |
| Slamannan               | 10 856        | —       | 10,856    | 3,440       | —       | 3,440     | 3,409       | —       | 3,409     |
| Total for Eastern Dist. | 51,509        | 2,737   | 48,772    | 85,538      | 43,793  | 41,745    | 84,803      | 43,031  | 41,772    |
| WESTERN DISTRICT.       |               |         |           |             |         |           |             |         |           |
| Baldernock              | 4,320         | —       | 4,320     | 747         | —       | 747       | 763         | —       | 763       |
| Balfron                 | 7,821         | —       | 7,821     | 1,155       | —       | 1,155     | 1,190       | —       | 1,190     |
| Buchanan                | 41,644        | —       | 41,644    | 795         | —       | 795       | 585         | —       | 585       |
| Campsie                 | 17,860        | —       | 17,860    | 5,304       | —       | 5,304     | 5,335       | —       | 5,335     |
| Drymen                  | 30,854        | —       | 30,854    | 1,269       | —       | 1,269     | 1,214       | —       | 1,214     |
| Fintry                  | 13,788        | —       | 13,788    | 280         | —       | 280       | 381         | —       | 381       |
| Killearn                | 15,375        | —       | 15,375    | 1,085       | —       | 1,085     | 1,054       | —       | 1,054     |
| Strathblane             | 9,085         | —       | 9,085     | 1,024       | —       | 1,024     | 1,275       | —       | 1,275     |
| Total for Western Dist. | 140,747       | —       | 140,747   | 11,659      | —       | 11,659    | 11,797      | —       | 11,797    |
| Total for County        | 288,842       | 5,648   | 283,194   | 160,991     | 81,384  | 79,607    | 161,719     | 80,685  | 81,034    |

**Deaths and Death-Rates.** — As will be seen from Table IV. the death-rate for the County is rather higher than it has been for five years. The average death-rate for the years 1919 to 1923 was 11.5, while that for 1924 was 13.2. A similar increase is shown in all three Districts. From a perusal of the table of causes of death it does not appear that any particular disease or disease group has been responsible for the increase, many of the items, e.g., measles, whooping-cough, influenza and pneumonia showing a few more deaths as compared with the previous year.

The death-rate for Scotland was 14.4 per 1000, which is also stated to be an increase on the previous year, and also fractionally greater than the mean of the rates of the previous five years.

**Table III.**—BIRTHS AND BIRTH-RATES PER 1000 OF POPULATION WITHIN THE COUNTY OF STIRLING,  
EXCLUSIVE OF BURHS, 1919-1924.

| District    | 1919   |             | 1920   |             | 1921   |             | 1922   |             | 1923   |             | 1924   |             |
|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
|             | Births | Birth-Rates | Births | Birth-Rates | Births | Birth-Rates | Births | Birth-Rates | Births | Birth-Rates | Births | Birth-Rates |
| Central ... | 669    | 22.2        | 838    | 27.4        | 813    | 29.6        | 691    | 24.6        | 699    | 25.6        | 718    | 26.8        |
| Eastern ... | 1009   | 24.5        | 1199   | 29.2        | 1148   | 27.5        | 1017   | 23.9        | 959    | 23.5        | 955    | 23.9        |
| Western ... | 156    | 13.7        | 231    | 20.2        | 221    | 18.7        | 209    | 17.4        | 194    | 16.7        | 180    | 15.8        |
| County ...  | 1834   | 22.2        | 2268   | 27.2        | 2182   | 26.9        | 1917   | 23.2        | 1852   | 23.2        | 1853   | 23.7        |

**Table IV.**—DEATHS AND DEATH-RATES PER 1000 OF POPULATION WITHIN THE COUNTY OF STIRLING,  
EXCLUSIVE OF BURHS, 1919-1924.

| District     | 1919   |             | 1920   |             | 1921   |             | 1922   |             | 1923   |             | 1924   |             |
|--------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|--------|-------------|
|              | Deaths | Death-Rates | Deaths | Death-Rates | Deaths | Death-Rates | Deaths | Death-Rates | Deaths | Death-Rates | Deaths | Death-Rates |
| Central ...  | 289    | 9.6         | 320    | 10.5        | 322    | 11.7        | 326    | 11.6        | 320    | 11.7        | 373    | 13.9        |
| Eastern ...  | 499    | 12.1        | 486    | 11.8        | 500    | 12.0        | 473    | 11.1        | 420    | 10.3        | 498    | 12.4        |
| Western ...  | 162    | 14.2        | 139    | 12.2        | 154    | 13.1        | 159    | 13.3        | 136    | 11.7        | 163    | 14.3        |
| Whole County | 950    | 11.5        | 945    | 11.3        | 976    | 12.0        | 958    | 11.6        | 876    | 11.0        | 1034   | 13.2        |

# INFANTILE MORTALITY, 1896-1924.

As showing the general diminution which has taken place in the infant mortality rate during the last 29 years, I give here in Table V. the figures for births, birth-rates and the deaths under one year per 1000 births for the three Districts and the County. The infant mortality fell from 115 for the five years 1896-1900 to 82 for the five years 1916-1920. For the last four years the mean rate was 77 per 1000 births.

Table V.—BIRTHS AND BIRTH-RATES AND DEATHS UNDER ONE YEAR PER 1000 BIRTHS, 1896-1924.

| Year. | CENTRAL DISTRICT. |             |                                      | EASTERN DISTRICT. |             |                                      | WESTERN DISTRICT. |             |                      | COUNTY.     |                      |                                      |
|-------|-------------------|-------------|--------------------------------------|-------------------|-------------|--------------------------------------|-------------------|-------------|----------------------|-------------|----------------------|--------------------------------------|
|       | No. of Births     | Birth-rate. | Deaths under 1 Year per 1000 Births. | No. of Births     | Birth-rate. | Deaths under 1 Year per 1000 Births. | No. of Births     | Birth-rate. | Deaths under 1 Year. | Birth-rate. | Deaths under 1 Year. | Deaths under 1 Year per 1000 Births. |
| 1896  | 531               | 30.763      | 65                                   | 1575              | 39.902      | 100                                  | 345               | 27.403      | 104                  | 2451        | 229                  | 93                                   |
| 1897  | 566               | 32.046      | 100                                  | 1586              | 38.953      | 136                                  | 236               | 26.508      | 95                   | 2478        | 305                  | 123                                  |
| 1898  | 556               | 30.798      | 111                                  | 1635              | 39.364      | 126                                  | 270               | 22.080      | 114                  | 2461        | 300                  | 121                                  |
| 1899  | 592               | 31.487      | 103                                  | 1581              | 37.328      | 130                                  | 254               | 20.762      | 122                  | 2427        | 298                  | 122                                  |
| 1900  | 619               | 31.797      | 111                                  | 1695              | 38.895      | 121                                  | 281               | 23.261      | 117                  | 2595        | 308                  | 119                                  |
| 1901  | 665               | 34.358      | 112                                  | 1442              | 36.998      | 110                                  | 263               | 23.698      | 114                  | 2370        | 265                  | 112                                  |
| 1902  | 627               | 31.721      | 87                                   | 1399              | 35.153      | 97                                   | 268               | 23.159      | 78                   | 2294        | 212                  | 92                                   |
| 1903  | 661               | 32.544      | 84                                   | 1380              | 35.150      | 95                                   | 245               | 21.530      | 106                  | 2286        | 214                  | 94                                   |
| 1904  | 664               | 31.846      | 105                                  | 1317              | 33.270      | 113                                  | 251               | 21.048      | 59                   | 2232        | 236                  | 105                                  |
| 1905  | 740               | 34.758      | 87                                   | 1384              | 35.050      | 94                                   | 249               | 21.401      | 116                  | 2373        | 225                  | 95                                   |
| 1906  | 721               | 32.720      | 124                                  | 1273              | 32.218      | 102                                  | 239               | 20.577      | 92                   | 2233        | 243                  | 109                                  |
| 1907  | 792               | 35.153      | 77                                   | 1231              | 30.561      | 85                                   | 240               | 20.495      | 95                   | 2263        | 183                  | 80                                   |
| 1908  | 845               | 35.957      | 131                                  | 1308              | 31.381      | 110                                  | 215               | 18.531      | 111                  | 2368        | 278                  | 117                                  |
| 1909  | 844               | 34.840      | 100                                  | 1247              | 30.016      | 66                                   | 267               | 22.636      | 48                   | 2358        | 179                  | 76                                   |
| 1910  | 796               | 32.058      | 121                                  | 1252              | 29.914      | 86                                   | 231               | 19.453      | 56                   | 2279        | 218                  | 95                                   |
| 1911  | 846               | 32.082      | 107                                  | 1206              | 28.673      | 100                                  | 235               | 20.128      | 85                   | 2287        | 230                  | 100                                  |
| 1912  | 797               | 29.557      | 99                                   | 1155              | 27.679      | 88                                   | 202               | 17.361      | 54                   | 2154        | 192                  | 90                                   |
| 1913  | 844               | 31.5        | 98                                   | 1173              | 28.8        | 104                                  | 237               | 20.8        | 68                   | 2254        | 221                  | 98                                   |
| 1914  | 845               | 31.2        | 101                                  | 1169              | 28.9        | 87                                   | 219               | 19.4        | 78                   | 2233        | 204                  | 91                                   |
| 1915  | 784               | 28.2        | 102                                  | 1088              | 26.7        | 98                                   | 207               | 18.3        | 82                   | 2079        | 204                  | 100                                  |
| 1916  | 688               | 24.3        | 74                                   | 1007              | 24.7        | 82                                   | 190               | 16.8        | 89                   | 1885        | 151                  | 80                                   |
| 1917  | 646               | 22.3        | 80                                   | 876               | 21.4        | 106                                  | 190               | 16.7        | 68                   | 1712        | 158                  | 92                                   |
| 1918  | 665               | 22.4        | 69                                   | 914               | 22.2        | 84                                   | 178               | 15.5        | 51                   | 1757        | 132                  | 75                                   |
| 1919  | 669               | 22.2        | 84                                   | 1009              | 24.5        | 88                                   | 156               | 13.7        | 141                  | 1834        | 167                  | 91                                   |
| 1920  | 838               | 27.4        | 69                                   | 1199              | 29.2        | 78                                   | 231               | 20.2        | 61                   | 2268        | 166                  | 73                                   |
| 1921  | 813               | 29.6        | 69                                   | 1148              | 27.5        | 76                                   | 221               | 18.7        | 45                   | 2182        | 153                  | 70                                   |
| 1922  | 691               | 24.6        | 94                                   | 1017              | 23.9        | 98                                   | 209               | 17.4        | 62                   | 1917        | 178                  | 93                                   |
| 1923  | 699               | 25.6        | 77                                   | 959               | 23.5        | 73                                   | 194               | 16.7        | 46                   | 1852        | 133                  | 72                                   |
| 1924  | 718               | 26.8        | 75                                   | 955               | 23.9        | 69                                   | 180               | 15.8        | 94                   | 1853        | 137                  | 75                                   |

## MATERNITY SERVICE AND CHILD WELFARE SCHEME.

In an appendix to the Board's Circular of 30th December, referred to at the beginning of this Report, statistics dealing with Maternity Service and Child Welfare Schemes are asked for under various heads, namely :—

1. Infantile Mortality, giving the age groups and causes of death ;
2. Births—the numbers registered, etc. ;
3. Maternal Mortality ;
4. Report under Midwives' (Scotland) Act, 1915 ;
5. Home Visitation ;
6. Voluntary Health Visitor's Reports ;
7. Ante-natal Consultations ;
8. Post-natal and other Consultations ;
9. Child Welfare Consultations ;
10. Special Treatment Centres, for Teeth, Eyes, other ailments, and the provision of Insulin ;
11. Day Nurseries, Kindergartens and Play Centres ;\*
12. Food and Milk ;
13. Measles ;
14. Whooping-Cough ;
15. Ophthalmia Neonatorum ;
16. Epidemic Diarrhœa ;
17. Maternity Hospitals or Homes ;
18. Homes for Unmarried Mothers ;
19. Hospitals for Sick Children ;
20. Convalescent Homes ;
21. Boarding-out ;
22. Home Helps ;
23. Educational ;
24. Note of Agencies, not referred to above, associated with Scheme ;
25. Other Provisions (e.g., treatment of pneumonia and bronchitis, after-care of cases of acute anterior poliomyelitis).

Under the Stirlingshire Scheme, in its present stage of development, definite statistics can only be given under ten of the foregoing heads, namely, Numbers 1 to 6 and 12 to 15 inclusive, but it may be stated here that, with regard to

Number 10, the Joint Child Welfare Committee have come to an arrangement with the County Education Authority whereby treatment of squint in young children and dental treatment for expectant and nursing mothers will be provided by the School Oculist and School Dentist respectively.

Table VI. gives the figures for Infantile Mortality as required under head No. 1, and Table VII. the statistics under head 2—Births, and head 3—Maternal Mortality.



**Table VI.—INFANTILE MORTALITY DURING THE  
YEAR 1924.**

|  | Central<br>District | Eastern<br>District | Western<br>District | Burghs of             |                    |     | Total | Rate per<br>1000 Births |
|--|---------------------|---------------------|---------------------|-----------------------|--------------------|-----|-------|-------------------------|
|  |                     |                     |                     | Denny and<br>Dunipace | Bridge of<br>Allan |     |       |                         |
| Number of Deaths ... ..                | 54                  | 66                  | 17                  | 14                    | 4                  | 155 | 76.5  |                         |
| Age Groups— Under 1 week ... ..        | 15                  | 18                  | 6                   | 7                     | 1                  | 47  | 23.2  |                         |
| 1.4 weeks ... ..                       | 7                   | 9                   | 3                   | 3                     | 1                  | 23  | 11.3  |                         |
| 4 weeks to 3 months ... ..             | 11                  | 11                  | 1                   | 2                     | 1                  | 26  | 12.8  |                         |
| 3.6 months ... ..                      | 6                   | 14                  | 3                   | 1                     | ...                | 24  | 11.8  |                         |
| 6.12 months ... ..                     | 15                  | 14                  | 4                   | 1                     | 1                  | 35  | 17.2  |                         |
| Causes of Death—                       |                     |                     |                     |                       |                    |     |       |                         |
| Chickenpox .. ..                       | ...                 | ...                 | ...                 | ...                   | ...                | ... | ...   | ...                     |
| Measles ... ..                         | 1                   | 1                   | ...                 | ...                   | ...                | 2   | 0.9   |                         |
| Scarlet Fever ... ..                   | ...                 | ...                 | ...                 | ...                   | ...                | ... | ...   | ...                     |
| Whooping Cough ... ..                  | 6                   | 5                   | 2                   | ...                   | 1                  | 14  | 6.9   |                         |
| Diphtheria and Croup ... ..            | ...                 | ...                 | ...                 | ...                   | ...                | ... | ...   | ...                     |
| Erysipelas ... ..                      | 1                   | ...                 | ...                 | ...                   | ...                | 1   | 0.5   |                         |
| Tuberculous Diseases .. ..             | ..                  | ...                 | ...                 | 1                     | ...                | 1   | 0.5   |                         |
| Meningitis (not Tuberculons) ... ..    | 1                   | 3                   | ...                 | ...                   | ...                | 4   | 1.9   |                         |
| Hydrocephalus ... ..                   | ...                 | ...                 | ...                 | ...                   | ...                | ... | ...   | ...                     |
| Convulsions ... ..                     | 1                   | 1                   | ...                 | ...                   | ...                | 2   | 0.9   |                         |
| Pneumonia (all forms) ... ..           | 3                   | 7                   | 3                   | ...                   | 1                  | 14  | 6.9   |                         |
| Bronchitis ... ..                      | 6                   | 6                   | 1                   | ...                   | ...                | 13  | 6.4   |                         |
| Diarrhoea and Enteritis ... ..         | 8                   | 7                   | ...                 | 1                     | ...                | 16  | 7.8   |                         |
| Other Digestive Diseases ... ..        | ...                 | 1                   | ...                 | ...                   | ...                | 1   | 0.5   |                         |
| Congenital Malformations ... ..        | 1                   | ...                 | ...                 | ...                   | ...                | 1   | 0.5   |                         |
| Congenital Heart ... ..                | ...                 | 2                   | ...                 | ...                   | ...                | 2   | 0.9   |                         |
| Premature Birth ... ..                 | 11                  | 16                  | 6                   | 3                     | 1                  | 37  | 18.2  |                         |
| Atrophy, Debility, and Marasmus ... .. | 5                   | 7                   | 3                   | 9                     | ...                | 24  | 11.8  |                         |
| Atelectasis ... ..                     | ...                 | ...                 | ...                 | ...                   | ...                | ... | ...   | ...                     |
| Injury at Birth ... ..                 | ...                 | 1                   | ...                 | ...                   | ...                | 1   | 0.5   |                         |
| Suffocation, overlying ... ..          | ...                 | 1                   | ...                 | ...                   | ...                | 1   | 0.5   |                         |
| Syphilis ... ..                        | ...                 | ...                 | ...                 | ...                   | ...                | ... | ...   | ...                     |
| All other Causes ... ..                | 10                  | 8                   | 2                   | ...                   | 1                  | 21  | 10.3  |                         |



Table VII.

| 2. BIRTHS  | Central District | Eastern District | Western District | Burghs of          |                 | Total |
|--|------------------|------------------|------------------|--------------------|-----------------|-------|
|  |                  |                  |                  | Denny and Dunipace | Bridge of Allan |       |
| No. Registered ... ..                                  | 718              | 955              | 180              | 130                | 43              | 2026  |
| Legitimate ... ..                                      | 683              | 898              | 165              | 125                | 43              | 1914  |
| Illegitimate ... ..                                    | 35               | 57               | 15               | 5                  | ...             | 112   |
| No. Notified ... ..                                    | 691              | 821              | 142              | 97                 | 36              | 1787  |
| No. Attended by Doctor ...                             | 343              | 448              | 129              | 51                 | 36              | 997   |
| No. Attended by Midwife ...                            | 348              | 373              | 13               | 66                 | 0               | 800   |
| No. of Still Births ... ..                             | 22               | 19               | 5                | 3                  | 2               | 51    |
| 3. MATERNAL MORTALITY                                  |                  |                  |                  |                    |                 |       |
| No. of Deaths resulting from Miscarriage or Childbirth | 5                | 3                | ...              | ...                | ...             | 8     |
| No. of Deaths resulting from Puerperal Sepsis ... ..   | 1                | 1                | ...              | ...                | ...             | 2     |

#### 4. REPORT UNDER MIDWIVES (SCOTLAND) ACT, 1915.

The following is a list of the Certified Midwives who have given formal notice of their intention to practise their calling within the above-mentioned areas :—

##### Central Stirlingshire.

- 1842—Susan Chalmers, 3 East Borland, Denny.
- 853—Julia Coleman, 30 Woodlea Terrace, Bonnybridge.
- 1141—Marion Coutts, 46 Queenzieburn, by Kilsyth.
- 902—M. R. Dickie, Main Street, Plean.
- 792—Isabella Dingwall, Redgatchill, Kippen.
- 3300—Jean Hendry, Stoneywood, Denny.
- 523—Helen Innes, Wallace Street, Bannockburn.
- 709—Marion Martin, Hawthorn Cottage, Bonnybridge.
- 3004—Ellen Muir, 12 Andersen Terrace, Longcroft.
- 3166—Margaret M'Cluskey, 6 Kersie Road, Fallin.
- 458—Nurse M'Guire, 23 Broad Street, Denny.
- 521—Margaret M'Phail, Russell Place, Bonnybridge.
- 5830—Marion S. MacMillan, 10 Dowan Place, Cambusbarron.
- 1742—Catherine O'Berg, Main Street, Bonnybridge.
- 694—Martha Rankine, Kersebrook Cottage, Larbert.
- 1162—Mary Reynolds, Wallace Row, Cowie.

- 1061—Janet Smith, Quartette Cottage, Bonnybridge.  
 2017—Eliz. Somerville, 107 Fallin.  
 2077—Catherine Stanley, 4 Middle Craigs, Stirling.  
 2930—Nurse Stewart, Main Street, Buchlyvie.  
 1931—Charlotte Thomson, 59 D. Block, Fallin.  
     557—Helen Thomson, P.O. Buildings, Banknock.  
 2842—Mary Traynor, Garden City, Bannockburn.  
     682—Jane Troup, Wester Seamores, Dennyloanhead.  
     456—Mary Wilkie, 60 Allandale, Bonnybridge.  
     489—Margaret Williamson, 202 Stirling Street, Denny.  
 1107—Sarah Hughes, 22 High Street, Kilsyth.  
 5972—Margaret Binnie, 129 Watsons Place, Dennyloan-  
     head.  
 1704—Margaret Abercrombie, 1 Duntreath Terrace,  
     Kilsyth.  
 5250—Jane Risk M'Gibbon, Faraway Farm, Kippen.

### Eastern Stirlingshire.

- 1722—A. Allison, Broomfield Cottage, Polmont.  
 1835—Eliz. W. Bruce, Station Road, Slamannan.  
     695—Elsie Campbell, 34 Mary Street, Laurieston.  
     823—Mary Cockburn, East Shieldhill, by Falkirk.  
     853—Julia Coleman, 30 Woodlee Terrace, Bonnybridge.  
     558—Helen Copland, Broomhill, Laurieston.  
     441—Jane Cowan, Longdyke, by Falkirk.  
     745—N. R. Ferguson, Main Street, Carronshore.  
     439—Ann Gillon, Mosscastle Road, Slamannan.  
 2057—Maggie Gordon, Limerigg, Slamannan.  
     999—Janet Harris, Station House, Avonbridge.  
 2333—Mary Law, Craigbank, Avonbridge.  
     709—Marion Martin, Hawthorn Cottage, Bonnybridge.  
     521—Margaret M'Phail, Russell Place, Bonnybridge.  
 1742—Catherine O'Berg, Main Street, Bonnybridge.  
     694—Martha Rankine, Kersbrook Cottage, Larbert.  
 2807—Agnes Rankine, Limerigg, Slamannan.  
     446—Agnes Small, Blackbraes, by Falkirk.  
 1061—Janet Smith, Quartette Cottage, Bonnybridge.  
     557—Helen Thomson, P.O. Buildings, Banknock, Bonny-  
     bridge.  
 2578—Eliz. Tripney, Nappysfaulds, by Falkirk.  
 4502—Eliz. Watson, Main Street, Airth.  
     456—Mary Wilkie, 60 Allandale, Bonnybridge.  
     503—Jessie G. Young, Greylands, Slamannan.  
     879—Mrs Harley, 212, West Carron.  
 6167—Annie Smith, 7 Burnhead Lane, Falkirk.

### Western Stirlingshire.

- 792—Isabella Dingwall, Redgatehill, Kippen.  
 2668—Margaret Gordon, Crosshill Street, Lennoxtown.  
 19929—Christina MacGregor, Rose Cottage, Drymen.  
 5505—Nurse Grant, Blaressan, Killearn.

### Burgh of Denny and Dunipace.

- 1842—Susan Chalmers, 3 East Borland, Denny.  
 3598—Eliz. Ferguson, Anchor Cottage, Dunipace.  
 3300—Jean Hendry, Stoneywood, Denny.  
 458—Nurse M'Guire, 23 Broad Street, Denny.  
 489—Margaret Williamson, 202 Stirling Street, Denny.

### Burgh of Bridge of Allan.

No notification has been received.

### Births in Area or District.

Total number of births during 1924—2019.

Total number of deaths of new-born children (within ten days) during 1924 :—50.

Actual number of births attended by Midwives during 1924 :—781.

Actual number of deaths of new-born children (within ten days) occurring in the practice of Midwives during 1924 :—16.

Actual number of cases not attended by a Doctor or Midwife during 1924 :—Births, 2 ; Deaths, 2.

### Cases of Ophthalmia Neonatorum.

Total number of cases during 1924 :—8.

Actual number of cases occurring in the practice of Midwives during 1924 :—3.

Actual number of cases occurring where confinement not attended by a Doctor or Midwife during 1924 :—Nil.

### Cases of Puerperal Sepsis.

Total number of cases during 1924 :—7.

Total number of deaths during 1924 :—2.

Actual number of cases occurring in the practice of Midwives during 1924 :—Nil.

Actual number of deaths occurring in the practice of Midwives during 1924 :—Nil.

Actual number of cases occurring where confinement not attended by a Doctor or Midwife during 1924 :—Cases, Nil; Deaths, Nil.

### Cases of Still-birth (Dead born).

Total number of cases during 1924 :—51.

Actual number of cases occurring in the practice of Midwives during 1924 :—19.

### Cases of Emergency.

The total number of cases of emergency in which Medical Practitioners have been called in under Section 22 of the Act during 1924, distinguishing the different classes, of emergency :—25.

### Classes of Emergency.

|                                   |    |
|-----------------------------------|----|
| Delayed or Difficult Labour ..... | 11 |
| Breech Presentation .....         | 2  |
| Ruptured Perineum .....           | 2  |
| Uterine Inertia .....             | 2  |
| Occipito Posterior .....          | 1  |
| Adherent Placenta .....           | 1  |
| Collapse of Lungs .....           | 1  |
| Post-partum Hæmorrhage .....      | 1  |
| Ante-partum Hæmorrhage .....      | 1  |
| Rigid Cervix .....                | 1  |
| Fits .....                        | 1  |
| Exhaustion .....                  | 1  |

### General Report on the Working of the Act.

It has been possible during the year to have the Midwives in the whole area visited periodically by the officials of the County Co-ordinated Medical and Nursing Scheme, and with trivial exceptions the reports as to the equipment and work of the Midwives have been very satisfactory. On one or two occasions it was found necessary to warn unregistered women that they were debarred from Midwifery work unless where a doctor was present. So far as I can learn, the warnings had good effect, and I have had no complaints for a considerable time.

### 5.—Home Visitation—

|                          |   |                        |
|--------------------------|---|------------------------|
| 1.—Infants—              | (a) Number of First Visits .....                                | 1752                   |
|                          | (b) Number of Re-visits .....                                   | 779                    |
|                          | (c) Number of Infants at age of 6 months—                       |                        |
|                          | (1) Breast Fed .....  | 45 per cent. (approx.) |
|                          | (2) Partially Breast Fed, 5 per cent. (approx.)                 |                        |
|                          | (3) Artificially Fed, 50 per cent. (approx.)                    |                        |
|                          | (d) Number of Infants born—                                     |                        |
|                          | (1) Prematurely .....   | 113                    |
|                          | (2) At full time .....  | 1639                   |
| 2.—Children (1-5 years)— |   |                        |
|                          | (a) Number of First Visits .....                                | 369                    |
|                          | (b) Number of Re-visits .....                                   | —                      |
| 3.—Expectant Mothers—    |   |                        |
|                          | (a) Number of First Visits .....                                | None                   |
|                          | (b) Number of Re-visits .....                                   | None                   |
|                          | (c) Number who consulted a doctor or<br>Ante-Natal Clinic ..... | Not known              |

### 6.—Voluntary Health Visitors' Reports—

(a) **Bannockburn Child Welfare Centre.**—This Centre is open every Thursday afternoon from 2.30 o'clock onwards, when the District Nurse and one of the local doctors are in attendance. Miss Wilson of Braemore, who takes a great interest in the Welfare Centre, reports that the number of attendances at the clinic during the year was 574. The Nurse only visits the children at their homes in case of illness when requested by the medical attendant to do so. The attendances at the clinic are improving as compared with former years, and quite a number of young mothers now bring their babies. Miss Wilson and Miss Mitchell provide tea, etc., to the mothers, so that the clinic has become quite a social centre.

I may state that I had the pleasure of attending one of these little social functions in connection with the clinic, and I was delighted with the appearance of the babies—and the mothers also! The whole tone of the place in fact reflected great credit on all concerned.

(b) **Fallin Child Welfare Centre.**—The Fallin clinic is held in the medical inspection room of Fallin Public School and in an adjoining classroom by an arrangement with the County Education Authority. Mrs Porter of Bandeath, who is an active member of the local Child Welfare Association, reports that during the year ended 31st December, twenty-one clinics were held. The number of attendances was 529, so that on each occasion there was an average attendance of about 25. The number of births notified in the area was 67, but to this figure is to be added a number of babies born elsewhere who were brought to the neighbourhood by newcomers. The Association's Nurse paid 120 visits to babies in their homes.

**7, 8 and 9. — Centre for Ante-Natal, Post-Natal, Child Welfare, and other Consultations.**—There are the voluntary Child Welfare Centres at Bannockburn and Fallin, already referred to under No. 6, but no Ante- or Post-Natal Clinics have so far been established. The Joint Committee suggested that something might be done in the way of calling the attention of expectant mothers to the desirability of early consultation with a medical attendant, and I have circularised midwives requesting them to advise expectant mothers accordingly.

**10.—Special Treatment Centres.**—As already mentioned, arrangements have been made for treatment of squint in young children and of dental defects in expectant and nursing mothers.

**11.—No Day Nurseries, Kindergartens or Play Centres** have been provided.

**12.—Food and Milk.**—Twenty-six applications were granted for milk—6 for mothers and 20 for children. Two of these children were certified on medical grounds as requiring milk. All the cases were necessitous. The total cost of the milk supplied during the year was £40 2s 1d.

**13.—Measles** is not a notifiable disease in the area of the Joint Committee.

The number of deaths from measles was two, and one died from the sequelæ of measles.

The number of cases treated in hospital was three.

No special visiting staff has been appointed.

**14.—Whooping Cough.** — This disease is not notifiable. The number of deaths was fourteen, and two died from sequelæ. The number treated in hospital was 17.



No staff has been appointed to visit cases of whooping-cough.

It should be stated, however, that all households in which measles or whooping-cough is known to have occurred are visited by the sanitary staff, who leave with the householders prints of the precautions that should be taken to prevent infection.

**15.—Ophthalmia Neonatorum.**—The number of cases notified was 8, of which 5 were notified by Doctors and 3 by Midwives. It is not known in how many cases the infection was gonococcal. All the cases were treated at home, and in no case was there appreciable loss of vision.

**16.—Epidemic Diarrhœa.**—No special measures have been taken.

**17.—Maternity Hospitals or Homes.** — The Committee have no institution of their own, but they have an arrangement with the Glasgow Royal Maternity Hospital. The number of cases treated throughout the year was 17, but the data with regard to conditions found, results of treatment, etc., are not available.

**18.—Homes for Unmarried Mothers before and after Confinement.**—None have been provided.

**19.—Hospitals for Sick Children.**—The Joint Committee have an arrangement with Bannockburn and Camelon Hospitals, but so far the only cases admitted have been measles and whooping-cough. Under the County Tuberculosis Scheme, also, quite a number of young children have been treated in these institutions.

Under headings 20 to 25, with regard to **Convalescent Homes, Boarding-Out, Home Helps, Educational, Agencies not already referred to, and other provisions**, no action has been taken.





## INFECTIOUS DISEASE NOTIFICATIONS.

As will be seen from Table IX., the greatest prevalence of infectious diseases throughout the County was in the Parish of Muiravonside, where there were over 21 cases to every 1000 of population, the next highest prevalence being in the parishes of Strathblane and Kilsyth. For the whole County the number of notifications per 1000 of population was 6.88, which is rather below the average for the past 10 years—(7.2). The numbers given in the table referred to do not include such diseases as chickenpox, malaria, trench fever, etc., which have been made notifiable within recent years, and tuberculosis is also excluded, so that the figures are strictly comparable with the figures contained in similar tables in Annual Reports for previous years.

**Table IX.** — INFECTIOUS DISEASE NOTIFICATIONS PER 1000 OF POPULATION (excluding Notifications of Tuberculosis, Chickenpox, Malaria, and other Diseases more recently made Notifiable) IN EACH LANDWARD PARISH IN STIRLINGSHIRE FOR THE YEAR 1924.

| PARISH.              | POPULATION<br>(CENSUS, 1921) | NO. OF<br>NOTIFICATIONS. | RATE PER<br>1000 OF<br>POPULATION. |
|----------------------|------------------------------|--------------------------|------------------------------------|
| Muiravonside, ... .. | 5,758                        | 124                      | 21·53                              |
| Strathblane, ... ..  | 1,275                        | 18                       | 14·11                              |
| Kilsyth, ... ..      | 2,764                        | 37                       | 13·39                              |
| Campsie, ... ..      | 5,335                        | 61                       | 11·43                              |
| Slamannan, ... ..    | 3,409                        | 37                       | 10·85                              |
| St. Ninians, ... ..  | 14,832                       | 145                      | 9·77                               |
| Denny, ... ..        | 5,251                        | 28                       | 5·33                               |
| Stirling, ... ..     | 388                          | 2                        | 5·16                               |
| Larbert, ... ..      | 12,389                       | 57                       | 4·60                               |
| Falkirk, ... ..      | 9,451                        | 43                       | 4·55                               |
| Logie, ... ..        | 1,526                        | 6                        | 3·90                               |
| Gargunnoch, ... ..   | 586                          | 2                        | 3·41                               |
| Airth, ... ..        | 1,777                        | 6                        | 3·37                               |
| Grangemouth, ... ..  | 9,008                        | 25                       | 2·27                               |
| Kippen, ... ..       | 1,508                        | 3                        | 1·99                               |
| Balfron, ... ..      | 1,189                        | 2                        | 1·68                               |
| Killearn, ... ..     | 1,052                        | 1                        | 0·95                               |
| Drymen, ... ..       | 1,214                        | 1                        | 0·82                               |
| Baldernock, ... ..   | 763                          | 0                        | 0·00                               |
| Buchanan, ... ..     | 585                          | 0                        | 0·00                               |
| Dunipace, ... ..     | 620                          | 0                        | 0·00                               |
| Fintry, ... ..       | 381                          | 0                        | 0·00                               |
| Total, ... ..        | 81,061                       | 558                      | 6·88                               |

## BACTERIOLOGICAL WORK.

In connection with the diagnosis and treatment of infectious disease, there were in all 656 pathological specimens sent to the Usher Institute of Public Health, Edinburgh, for bacteriological examination. Of these specimens 501 were swabs from the throats of persons who were (1) suspected to be suffering from diphtheria; (2) contacts with known cases; or (3) recovering from the disease. In the case of the last-mentioned, a bacteriological report on a swab is a valuable guide as to whether a patient is free from infection, and it is now the practice in most hospitals to obtain one or more negative reports before discharging a diphtheria patient. Forty-six specimens of blood were tested for the widal reaction for typhoid fever; 104 samples of sputum were examined for the tubercle bacillus, while 3 samples of cerebro-spinal fluid and two other specimens were also examined.

Of the total specimens, 218 were sent from the Central District, 290 from the Eastern, and 148 from the Western, the cost of the examinations, exclusive of telegrams and telephone messages, being—Central District, £29 15s; Eastern District, £36 5s; and Western District, £19 10s.

**Table X.**—BACTERIOLOGICAL SPECIMENS EXAMINED DURING 1924.

| District.   | Throat Swabs for Diph. B. | Blood for Widal Test. | Sputum for T.B. | Cerebro-Spinal Fluid. | Other Specimens. | Total. |
|-------------|---------------------------|-----------------------|-----------------|-----------------------|------------------|--------|
| Central ... | 144                       | 16                    | 53              | 3                     | 2                | 218    |
| Eastern ... | 219                       | 30                    | 41              | ...                   | ...              | 290    |
| Western ... | 138                       | ...                   | 10              | ...                   | ...              | 148    |
| Total ...   | 501                       | 46                    | 104             | 3                     | 2                | 656    |

## TREATMENT OF VENEREAL DISEASE.

The treatment of venereal disease has been carried out, as in former years, at the clinic in connection with Stirling Royal Infirmary. During the past year a considerable amount of new electrical apparatus has been installed at the clinic, with the result that the scope of the treatment available there has been widened. The following table, taken from the official report by Dr Angus, summarises the number of attendances at the clinic during the year ending 15th May, 1925 :—

|   | Males | Females | Total | Year<br>1923-4 |
|---|-------|---------|-------|----------------|
| 1.—Number of persons under treatment or observation at beginning of year .....                    | 104   | 46      | 150   | 139            |
| 2.—Cases in which treatment or observation was commenced during the year .....                    | 176   | 66      | 242   | 267            |
| Total of 1 and 2 .....  | 280   | 112     | 392   | 406            |
| Number of persons under treatment or observation at end of year .....                             | 110   | 49      | 159   | 150            |
| Number of persons discharged, or who left prematurely, or were transferred to other Centres ..... | 240   | 93      | 333   | 256            |
| Number of whom were persons suffering from conditions other than venereal .....                   | 40    | 19      | 59    | 102            |
| Total attendances at the Out-Patient Department .....   | 2980  | 1775    | 4755  | 5820           |

The ages of the patients treated varied widely, as is shown by the table below :—

|                    | 1924-25 | 1923-24 |
|--------------------|---------|---------|
| Under 1 year ..... | 7       | 12      |
| 1-5 .....          | 6       | 3       |
| 5-15 .....         | 16      | 10      |
| 15-25 .....        | 135     | 108     |
| 25+ .....          | 169     | 171     |

From these figures it will appear that the total number of cases treated at the Clinic during the year shows some diminution. This, however, is not due so largely to any decrease of adult patients as to the falling-off in the number

of babies in the early weeks of life. These children are nearly all cases of eye disease, contracted at birth, and their treatment is protracted, involving attendance at the Clinic once per day and often more frequently, so that any reduction in the number of infants so treated reduces very considerably the number of total attendances.

The number of patients leaving off treatment before complete cure can be guaranteed is still, unfortunately, too high, but it is gratifying to note that this number appears to be decreasing, being only 30 per cent. of total attenders in the year 1924-25, as against 42 per cent. in the preceding year.

### TRAINING AND REGISTRATION OF NURSES.

In 1919 the Nurses' Registration (Scotland) Act was passed, and it was remitted to me by one of my Committees to prepare a report on a circular issued by the Board of Health making certain suggestions as to the necessary training required for the purpose of Registration of Nurses. My report was as follows :—

“ The Registration Act provides for a General Register and various Supplementary Registers, one of the Supplementary Registers being for the registration of nurses trained in fevers. There is no question that the aim of all nurses should be to register in the General Register, as it gives a greatly enhanced status. It therefore afforded me great pleasure to find from the Board's recent circular on the matter that they were indicating the line which I, in common with all Medical Officers of Health, considered the appropriate one under the circumstances.

“ Put shortly, the Board's suggestion is that fever nurses should spend two years in training, and that arrangements should be made between Local Health Authorities and the Directors of General Hospitals by which the fever nurses at the end of two years would proceed to the General Hospital for an additional two years, thereby qualifying on examination for both the Fever Register and the General Register. For these purposes there are two examinations, the first examination comprising (1) elementary anatomy and physiology, (2) hygiene, (3) elementary theory and practice of nursing (Part I.), to be taken on completion of the two years' fever hospital training, and the second examination comprising (1) elementary theory and practice of nursing (Part II.), (2) dietetics and cooking, (3) bacteriology, (4) medical nursing, (5) surgical

nursing, (6) gynecology, and (7) venereal diseases, to be taken at the end of the two years' training in the General Hospital.

" By the institution of such a system benefit would accrue both to fever trained nurses and to the so-called general trained nurses. Many of these girls on the completion of their training become applicants for posts under Health Authorities, and in such posts a knowledge of the acute infectious diseases is of great value. The fever trained nurse from the medical point of view gets an excellent training, and the scope of work in the Fever Hospitals has become of late years very much more comprehensive than formerly, so that the range and training is both wide and varied. On the surgical side, however, the training is necessarily limited. A nurse trained in a General Hospital, on the other hand, has practically no knowledge whatever of the acute infectious diseases and their complications, so that her training is far from complete. By such a system as suggested by the Board therefore, our future nurses would be much better equipped for nursing generally, but especially for Public Health appointments.

" It is to be pointed out, however, that the staffing of Local Authority Fever Hospitals on such a basis would require some consideration, because in such a system there would naturally be no third year probationers, and that would probably mean an addition to Fever Hospital staffs of more certificated and registered nurses. The General Hospitals, on the other hand, would greatly benefit by the arrangement, because they would get probationers at the end of their two years' training in the Fever Hospital, so that from the very start they might be regarded as useful nurses. The disadvantages from the Local Authority's point of view would probably not be great in having their probationers for only two years instead of three, and that disadvantage would be far more than outweighed by the undoubted advantage to the nurses.

" For the foregoing purpose it would be almost essential to have a unit area comprising a General Hospital and a Fever Hospital or Fever Hospitals, which for nursing purposes would act as feeders to the General Hospital. In the Central District such a unit area suggests itself immediately. We have the Stirling Royal Infirmary with a large staff of probationers in addition to the certificated staff. In the area there are really two Fever Hospitals, namely the County Fever Hospital at Bannockburn, and the Stirling Combination Hospital at Kildean. The staffs of the two Fever Hospitals after two years' training could easily be accommodated at the Stirling Royal Infirmary for a further two

years' training, the nurses thereby qualifying on examination for the General Register. Such an arrangement would be entirely on the lines suggested in the Scottish Board of Health's circular. It would, of course, require the approval of the three bodies concerned, namely, the Directors of the Infirmary, the District Committee, and the Managers of the Burgh Hospital.

“ In conclusion, I would like to point out that such a scheme as outlined by the Board would attract to the profession of nursing the very best type of girls, and the advantages in such a course of training would be such as to raise the standard of nursing throughout the whole country.”

A similar memorandum was written for the Eastern District as a unit area, the Falkirk Infirmary being the General Hospital, and the two feeders being the Eastern District Fever Hospital at Camelon and the Falkirk Burgh Fever Hospital.

At the time of writing no arrangement has been come to between the General Hospitals and the Fever Hospitals on this question.



## PREVENTION, DETECTION AND TREATMENT OF TUBERCULOSIS.

**Deaths and Death-Rates.**—The number of deaths recorded throughout the three Districts of the County as having been due to tuberculosis was 70, or at the rate of 0.89 per 1000 of population. Of these 70 deaths, 42 were due to pulmonary tuberculosis, and 28 to other forms of tuberculosis, the death rates being respectively 0.54 and 0.35. Compared with the death-rates in former years shown in Table XI., these rates are very low. For the past four years the average death rate from tuberculosis was 0.86, while the quinquennial death rates from 1891 to 1920 ranged from 2.07 per 1000 (for the years 1891-1895) to 1.00 (for the years 1916-1920).

From the Registrar-General's preliminary statement for the year 1924, it is seen that the death rate from tuberculosis for the whole of Scotland was 1.16 per 1000, the death-rate from pulmonary tuberculosis being 0.80, both of which rates it is stated are the lowest yet recorded.

**Table XI.**—MEAN DEATH RATES FROM TUBERCULOSIS IN  
QUINQUENNIAL PERIODS, FROM 1891 ONWARDS.

| Quinquennial<br>Period. | Death Rates per 1000 of Population. |                            |                                |
|-------------------------|-------------------------------------|----------------------------|--------------------------------|
|                         | All forms of<br>Tuberculosis.       | Pulmonary<br>Tuberculosis. | Non Pulmonary<br>Tuberculosis. |
| 1891-1895               | 2.07                                | 1.32                       | .75                            |
| 1896-1900               | 1.80                                | 1.33                       | .47                            |
| 1901-1905               | 1.58                                | 1.66                       | .42                            |
| 1906-1910               | 1.55                                | 1.03                       | .52                            |
| 1911-1915               | 1.34                                | .77                        | .57                            |
| 1916-1920               | 1.00                                | .62                        | .38                            |
| Year 1921               | .85                                 | .55                        | .30                            |
| „ 1922                  | .75                                 | .48                        | .27                            |
| „ 1923                  | .94                                 | .54                        | .40                            |
| „ 1924                  | .89                                 | .51                        | .35                            |

**Notification of Pulmonary Tuberculosis.**—From Table XII. it will be seen that since pulmonary tuberculosis became compulsorily notifiable in 1912, the total cases notified from the three Districts of the County numbered 1056. Of that number 697 have either died or left the district, so that the number of cases remaining on the registers at the end of the year was 359, of which 139 are in the Central District, 189 in the Eastern District, and 31 in the Western District.



**Table XII.—PULMONARY TUBERCULOSIS—1912-1924.**

| District of<br>County. | No. of Notifications<br>Received. |      |        | No. of Notified Patients              |                        |
|------------------------|-----------------------------------|------|--------|---------------------------------------|------------------------|
|                        | 1912-1923                         | 1924 | Total. | Who have<br>died or left<br>District. | Still on<br>Registers. |
| Central ... ..         | 373                               | 30   | 403    | 264                                   | 139                    |
| Eastern ... ..         | 473                               | 42   | 515    | 326                                   | 189                    |
| Western ... ..         | 129                               | 9    | 138    | 107                                   | 31                     |
| Total ... ..           | 975                               | 81   | 1056   | 697                                   | 359                    |

In September I was asked by the Board of Health for a Return of Persons who died from pulmonary and other forms of tuberculosis during the years 1921, 1922 and 1923, with particulars as to period elapsing between notification and death. The return was rather interesting in view of the fact that it has been stated that in some Counties notification is frequently delayed until the patient is acutely ill or even dying. For Stirlingshire the figures were as follow :—

|   | 1921 | 1922 | 1923 |
|---|------|------|------|
| No. who died from pulmonary tuberculosis        | 45   | 40   | 43   |
| of whom—  |      |      |      |
| Not notified or notified only at or after death | 6    | 2    | 4    |
| Notified less than 1 month before death         | 6    | 10   | 4    |
| Notified from 1 to 3 months before death        | 6    | 8    | 7    |
| Notified from 3 to 6 months before death        | 5    | 6    | 7    |
| Notified from 6 to 12 months before death       | 3    | 1    | 6    |
| Notified from 1 to 2 years before death         | 7    | 4    | 2    |
| Notified over 2 years before death              | 12   | 9    | 13   |
|   | 1921 | 1922 | 1923 |
| No. who died from Non-pulmonary tuber-          |      |      |      |
| culosis   | 24   | 22   | 32   |
| of whom—  |      |      |      |
| Not notified or notified only at or after death | 13   | 14   | 15   |
| Notified less than 1 month before death         | 2    | 1    | 4    |
| Notified from 1 to 3 months before death        | 2    | 1    | 2    |
| Notified from 3 to 6 months before death        | 1    | 1    | 2    |
| Notified from 6 to 12 months before death       | 1    | 1    | 1    |
| Notified from 1 to 2 years before death         | 2    | 1    | 3    |
| Notified over 2 years before death              | 3    | 3    | 5    |

**Institutional Treatment — Pulmonary Tuberculosis.**—At the beginning of the year the number of patients under treatment in the Sanatorium and elsewhere was 20, 10 of whom were in Ochil Hills Sanatorium, 4 in Camelon Hospital, 3 in Bannockburn Hospital, and one each in Lennox Hospital, Longmore Hospital, Edinburgh, and Blinkbonny Home, Falkirk.

Throughout the year 1924 the number of patients admitted to such institutions was 105—68 to Ochil Hills Sanatorium, 17 to Camelon Hospital, 13 to Bannockburn Hospital, 5 to Lennox Hospital, and 1 each to Blinkbonny Home and Manor Valley Sanatorium. Of these, 77 were from the Landward Area of the County, while 5 were from the Burgh of Grange-mouth, 13 from the Burgh of Kilsyth, 9 from the Burgh of Denny, and 1 from Bridge of Allan. The results of treatment as indicated by the discharge reports were briefly as follows: — Disease arrested in 1 case; 6 were very much improved; 19 were much improved; 39 improved; 12 did not improve; 8 died; while 5 absconded without permission, and 2 were dismissed for misbehaviour. The remaining 33 were still under treatment at the end of the year, 22 of these being in the Ochil Hills Sanatorium, 4 in Camelon Hospital, 2 in Bannockburn Hospital, 4 in Lennox Hospital, and 1 in Blinkbonny Home.

**Non-Pulmonary Tuberculosis.**—Sixty cases were treated in various institutions at the cost of the Committee — 39 in Stirling Royal Infirmary, 11 in Bannockburn Hospital, 8 in Camelon Hospital, 1 in Ochil Hills Sanatorium, and 1 in Lennox Hospital. In addition, I understand that a considerable number of cases were treated in Falkirk Infirmary, admission to which was arranged by the patients' own medical attendants. Of such cases, however, I have no record. In non-pulmonary cases surgical treatment in Hospital is in very many cases an absolute necessity, and in Stirlingshire we are very fortunate in having two such institutions as the Stirling Royal and Falkirk Infirmaries.

Towards the end of the year a letter was received from the medical attendant of a patient suffering from lupus, requesting that the patient might receive facilities for attending Edinburgh Royal Infirmary in order that he might have the benefit of the new "Sunshine" treatment. After consultation with the Convener, and with the approval of the Board of Health the man was provided with a three months' railway season ticket to Edinburgh. I may say that when last I saw the man there was a very marked improvement in

his health and appearance, and there was hope that his health would be so improved that eventually he would be fit for work. This patient attended Mass on Christmas Eve, and the following day he developed a very severe facial erysipelas, and had to be removed at once to Bannockburn Hospital, with the unfortunate result that his treatment in Edinburgh was interrupted.

**Domiciliary Treatment.**—Throughout the year the number of patients who received a grant of domiciliary treatment was 60, and at present the number receiving treatment is 22. This domiciliary treatment consists, as I have explained in previous reports, in a grant of extra nourishment necessitated by the patient's condition, and is intended to be something in addition to his ordinary maintenance. Undoubtedly, in appropriate circumstances such a grant is much appreciated, and in the case of children is of special value in the treatment of tuberculosis. Before a grant of domiciliary treatment is given the case is seen usually by myself, but if not, then by one of my staff. The medical attendant is then invariably consulted, and in fact the treatment is, as a rule, supervised by him. The bills are sent to the medical attendant, who initials them if correct, and transmits them to me. This service on the part of the medical men of the County is of great assistance to the Public Health Department.

Under the new Scheme of Co-ordinated Medical and Nursing Services, it has been possible during the year to keep more in touch with individual cases than was possible in previous years. Most of the patients on my lists have been medically examined by the Assistant Tuberculosis Officers at least once, some of them several times, since the scheme was inaugurated. Many cases also have been visited periodically by the nurses where such visitation has been considered desirable.

## RIVERS POLLUTION PREVENTION.

In connection with a former report on rivers pollution, communications were received by the Central District Committee from the Scottish Board of Health asking for certain further information. I accordingly reported to that Committee and also to the Rivers Pollution Committee in the following terms, the report, as will be seen, having reference mostly to the pollution of the Carron by Paper Mills:—

“ It may be taken, I think, as almost axiomatic that paper mills or, indeed, any large factories have a polluting effect

on streams. Where the volume of water is large in relation to the amount of polluting material there may be such dilution that pollution is hardly recognisable.

“ In this connection it is to be remembered that a very large proportion of the waters of the Carron is abstracted for gravitation supplies to a population (County and Burghal) of over 100,000. The result is that during certain seasons of the year practically the whole of the remaining water in the bed of the stream passes through the mill lades.

“ Add to that the fact that there are four important Paper Mills on the banks of the Carron within a comparatively short distance, each of which adds its quota of pollution, and it will be seen that the conditions on the Carron are exceptional.

“ In at least one important respect there has been improvement in the condition of the River Carron. Not many years ago the stones in the bed of the stream used to be covered by a greyish unsightly glut composed of a deposit chiefly of fine fibre and china clay. This glut has for years almost entirely disappeared, as most of the fine fibre, china clay, etc., is profitably recovered from the mill effluents.

“ It is well known that for years there have been no fish in the Carron below the paper mills. That result, in my opinion, is due principally to the inevitable escape of a proportion of the caustic soda used in certain of the processes. Were this diluted by a large volume of water it might not be fatal to fish life, but as I have already indicated the volume is extremely small during dry seasons. The actual degree of pollution in fact depends largely on the amount of dilution.”

**“ Vale Paper Works, Denny — River Carron. —** The raw material used at the Vale Paper Works, Denny, consists of wood pulp and waste paper.

“ Cardboards are principally produced.

“ Aniline dyes are used when necessary, and are fixed by mordaunts.

“ As there is no boiling, no caustic soda is used.

“ China clay is used, but bleach is not.

“ There are no breakers, as no bleaching is done.

“ The effluent from the beaters is used over and over again to save valuable material, such as fibre, dye, china clay, alum and resin.

“ The material from the beaters in the form of fine pulp passes to the machine, the effluent from which is pumped to a Fullner save-all to prevent the escape of valuable material.

“ The mill effluent escapes into the Anchor Burn immediately above its junction with the River Carron.

“ **Banton Special Drainage District.**—There are really no sewage works. The few houses with w.c.'s have each a septic tank, the septic tank mentioned in the report being the one which takes the sewage from the school and school-house. The effluent from this after sub-irrigation passes to a small stream, a tributary of the Kelvin.

“ **Carrongrove Paper Works, Denny, River Carron.**—The raw material used at the Carrongrove Paper Company Works consists of esparto grass and wood pulp. Writing, printing and art papers are produced.

“ Aniline dyes are used to give shadings and tints, but no deep colours are produced. These are, of course, fixed by mordants.

“ Caustic soda is extensively used in the boiling of the esparto grass to soften and pulp the fibre. An up-to-date recovery plant has been for years in operation, by which it is alleged that at least 92 per cent. of the caustic soda is recovered. China clay is much used. It is added to the pulp in the beater along with any dye that is to be added. Bleach is used in the breakers in the form of liquid chlorine. The use of bleaching powder has been entirely discontinued.

“ The material from the breakers with the liquid chlorine passes to the bleaching towers, of which there are two series of nine and six respectively. By the time the material has reached the last tower the whole of the chlorine has disappeared. This is essential, otherwise the chlorine would have a bleaching action on the dyes added to the beaters. The effluent from the breakers is pumped up and re-used in the breakers so as to recover as far as possible any fibre that may have escaped in the effluent.

“ The whole contents of the beaters passes in the form of finely divided pulp to the machine, the effluent from which is pumped to Fullner Tanks, where material such as fibre, china clay, etc., settles to the bottom and is taken again to the beaters, while the supernatant fluid escapes to the river.



**“ Stoneywood Paper Works, Denny, River Carron.**—The chief raw materials used here are wood pulp and linen rags. Manilla papers for various purposes are produced. Aniline dyes are used for tintings, and are fixed by mordants. A small quantity of caustic soda is used for softening the rags in boiling, but it is too little for recovery purposes. The washings from the boiled rags are pumped into settling ponds, spoken of later. Very little China clay is used, the estimate being about five tons per annum. Bleach is used when necessary. It is brought to the works as bleaching powder, from which the chlorine is extracted as a watery solution, the limey residue being mixed with the boiler ashes and sent to the refuse bing. Any bleach required is added in the breakers. The effluent from the breakers, which contains a good deal of muddy material without fibre, as far as possible is pumped to settling ponds. From the beaters the material passes as a fine pulp to the machine. The effluent from the machine, when clear, passes direct to the river; when coloured, is pumped to the settling ponds.

“ The settling ponds, consisting of four in series, are principally meant for sedimentation. There is a fifth pond used when necessary for sedimentation and filtration. The settling ponds take (1) the washings from the boiled rags containing small amounts of NaOH, (2) the effluent from the breakers, containing usually traces of chlorine, and (3) the effluent from the machine, containing traces of colour.

“ The chlorine in the ponds is said to serve the double purpose of helping to discharge the colour, and of combining with the caustic soda to form NaCl (common salt).

“ The sludge from the ponds is removed from time to time to the refuse bing.

**“ Denny Paper Works, River Carron.**—The raw material at the Denny Paper Works consists of bagging and waste paper. Wrappings, lappings, and brown papers are produced. Aniline dyes are employed where required, and the necessary mordants are used. No caustic soda is used, as there is no boiling process. China clay is used, but no bleach. There are no breakers, as no bleaching is done. The effluent from the beaters is used over and over again to save valuable material such as fibre, dye, China clay, alum and resin. There is no Fuller apparatus.

**“ Bankier Distillery, River Bonny.** — At this Distillery there is one settling pond of cement. Three large ponds

have also been provided in series for sedimentation and filtration. These are meant to treat the spent ale before it reaches the River Bonny.

"The fluid gradually filters through to the river and the sludge in the ponds is removed from time to time.

"There has been no complaint of pollution for a long period, and if the ponds are carefully used there need be no cause of complaint.

**"Airthrey Paper Works, Bridge of Allan, River Allan.—**The raw material used here is mostly waste paper. Ticket papers and wrappings are chiefly produced.

"Aniline dyes are used for tintings, and are fixed by mordants.

"No caustic soda is used, as the raw material does not require boiling.

"China clay is used very sparingly. A little bleach is occasionally used, and is added as chloride of lime to the breakers, the limey residue being simply incorporated in the paper.

"The effluent, both from the breakers and from the machine, gravitates to a well, from which it is pumped to a circular settling tank. The supernatant fluid drains to the burgh sewer, and the sludge is removed periodically."

In October, the Eastern District Committee remitted to the Rivers Pollution Sub-Committee to report as to the condition of the River Carron at low water at Carronshore, and as this is a matter of considerable interest, I give here an excerpt from the Minute which also deals with the pollution of the Avon:—

#### **"Pollution of River Carron.**

**"Cobblebrae Outfall. —**The Sub-Committee found that these works at the time of their visit were not being operated, and that the effluent therefrom was discharging into the river at two points. The effluents were very different in appearance, the upper being tinted a light yellowish shade, and the lower a shade darker, as if from some coal tar residue. Neither of the effluents had a perceptible odour, and except for the colour nothing objectionable was noticeable in the effluents. Both effluents discharged into the river at a point where it is tidal. The Committee found on their return upstream, and at a point about midway between the



outfall works and Carron Bridge, that it was here possible to make an inspection of the bank of the river well down to its bed, which was done, and it was noted that at this point there was nothing objectionable in the conditions.

**“ Carronshore Outfall.** — The Committee then proceeded to Carronshore and examined the outfall works there. These are somewhat primitive, but serve a useful purpose by extracting the solids. At the time of the visit the grit chambers were being cleaned out, and it was noticed that a considerable quantity of solid matters was being removed. It should be noted that the effluent from these works is into tidal waters. At this point the banks of the river were examined—the upper and grass covered parts only could be seen as the tide had by now risen over the lower parts of the banks. It was noted that the grass on the river's bank had a grimy look as from mud deposited at high water, and there was other evidence of refuse deposits apparently collected from the receding tide.

**“ Burgh of Falkirk Outfall.**—Thereafter the Committee walked down the north bank of the river to a point almost opposite to where the Burgh of Falkirk sewer discharges into the river. The tide at this time was coming in, and the tidal water was flowing up the river at a fairly rapid rate. The Committee was fortunate in the time of their visit, and got ample evidence of how the Burgh sewage is carried up by the tide beyond Carronshore, and noted faecal matter floating on the surface, and also that there was perceptible a decided sewage smell. This concluded the forenoon's inspection.

**“ Conclusions.**—The Committee understand that the fact of the pollution of the river along this area is not in question—that this is already established, and that the degree of pollution as compared with those of, say, five or more years ago is the question at issue. This they think can be best arrived at along the lines of common sense reasoning, and by taking into account all the circumstances and conditions as they find them. They conclude, therefore, that there can be no doubt, having special regard to the conditions at the time of the Committee's visit that matters are changing for the worse; and, further, that the chief cause of the unsatisfactory conditions is the discharge of the crude sewage from the Burgh of Falkirk outfall into the river. The Sub-Committee feel that they would fail in their duty did they not in this report urge that everything possible should be done without delay to find a remedy of what is unquestionably a growing menace to the Health of the District.

### “ Pollution of River Avon.

“ The Sub-Committee then considered a letter, dated 26th May, from the Board of Health, along with extracts from the Report by one of the Board's Inspectors on the pollution of the River Avon.

“ **Manuel Burn.**—The Sub-Committee then proceeded to Linlithgow Bridge, and inspected the River Avon. It was noted that the houses here drain directly into the Avon. From Linlithgow Bridge the Committee proceeded to the village of Maddiston, and inspected the Manuel Burn, a tributary of the River Avon, which receives the waste and slop water of the village. The Committee noticed that the Manuel Burn was seriously polluted with coal washings, and were informed that this came from Craighend Colliery, and they decided to pay a visit to the Colliery, the owners of which are Carron Company. At the Colliery they met the Manager, and inspected a new plant recently installed to extract sediment from the coal washings. It was noticed, however, that the effluent from the Colliery still contained a large amount of silt, and was very black. The Manager showed the Committee an iron pipe 5in. in diameter which was being laid, and which when completed was intended to take the effluent to two disused quarries, where it would have ample opportunity to settle. It was expected that the pipe would be in use within a fortnight, and the Manager was sanguine that there would be no further cause for complaint.

“ **Bowhouse and Gardrum Burns.**—The Committee then proceeded and inspected Bowhouse Burn, near Standburn. The waste and slop water from the village of Standburn discharges through a septic tank into Bowhouse Burn, a tributary of the Avon. From Standburn the Committee proceeded to the village of Avonbridge, and inspected the River Avon there. The drainage of the village here is direct into the river. The Committee proceeded to the village of Blackbraes, and inspected the Gardrum Burn at that point. The Gardrum Burn receives the waste and slop water of the village of Blackbraes, which is treated in a fairly large septic tank before discharging into the burn. The drainage from the Village of California also drains direct into Gardrum Burn.

“ **Culloch Burn.**—The Committee intended to proceed to Slamannan district, but the hour was found to be too late to do so. They were, however, cognisant of the facts with regard to the discharge of the sewage at Lochside, High and Low Limerigg, and Burn Row and Slamannan Village, all

of which discharges into the Culloch Burn, and eventually reaches the River Avon. It was pointed out to the Committee that in the beginning of this year drainage schemes were prepared for the villages of Maddiston, Slamannan and Shieldhill, and that an application was made to the Unemployment Grants Committee, who had agreed to allow the schemes to rank for a grant towards the cost of the works. After allowing for the Government Grant, it was found that the rate per £ required to carry out those schemes was prohibitive, and in the Village of Maddiston a plebiscite of the ratepayers was taken, whereby it was decided that no drainage district for the village should be formed, owing to the heavy cost.

**“ Conclusions.** — The Sub-Committee, in submitting this report, feel bound to say that they would be glad to see the streams in this district, and which comprise the subjects of this section of their report, kept in a purer state, but except for minor improvements, we are advised it is not possible, under the present circumstances, to materially improve the condition of the Avon and its tributaries except by the installation of proper drainage facilities.”

### POLLUTION OF RIVER KELVIN.

At the end of November I made a short report to the County Rivers' Pollution Committee with regard to the pollution of the Dock Burn, a tributary of the Kelvin. My report was as follows:—

“ With regard to the pollution of the Dock Burn, a tributary of the Kelvin, I wish to say that I have reported on this matter from time to time, and especially in June, 1918, there was a very exhaustive report. At that time there was a complaint from Dumbartonshire regarding the pollution caused by the effluent from Dumbreck Colliery, and also by sewage from Kilsyth Burgh.

“ At Dumbreck Colliery there is of course a very large installation of coking ovens. The gas from the coking ovens is washed by water so as to abstract the ammonia, the gas itself, thus purified, being utilised mostly for heating purposes. The washings from the gas are then treated with quick-lime to drive off the ammonia, which is then absorbed by sulphuric acid, thus forming ammonium sulphate. The spent liquor contains some phenols and other organic compounds, and it is these that form the objectionable matters in the colliery effluent. The lime and other solids are as far as possible taken out by means of settling tanks.

“ When I was last at the colliery the spent liquor was being pumped on to the top of the rubbish heap, which was therefore acting as a huge filter. The effluent issued from the rubbish heap in such a condition as to cause some pollution of the Dock Burn, but it is difficult to find any means that would be better, apart from evaporating the whole of the spent liquor, which amounts to 70,000 gallons per day. That I rather think would be impracticable.”

## FOOD AND DRUGS ACTS.

From the following Table it will be seen that a total of 196 samples were taken under the Food and Drugs Acts for analysis by the Public Analysts, these being made up of 81 from the Central District, 75 from the Eastern District, and 40 from the Western District. The bulk of the samples were of milk, butter, cheese and margarine, which accounted for 139, the other 57 samples being spread over 17 different classes of food. Of the total samples 184 were certified genuine, while 12 were certified non-genuine. In only one case, however, was it considered desirable to take legal proceedings. This was in connection with a sample of milk deficient in milk fat to the extent of 5 per cent., and also deficient in milk solids other than milk fat to the extent of 4 per cent. The vendor of the sample failed to give a satisfactory explanation of the deficiencies, and was fined a guinea.

**Table XIII.—SAMPLES TAKEN UNDER THE SALE OF FOOD AND DRUGS ACTS DURING THE YEAR 1924.**

| Nature of Samples.        | Central District. |           | Eastern District. |           | Western District. | Total.     |
|---------------------------|-------------------|-----------|-------------------|-----------|-------------------|------------|
|                           | North.            | South.    | North.            | South.    |                   |            |
| Butter ... ..             | 7                 | 7         | 1                 | 1         | 5                 | 21         |
| Chocolate ... ..          | 0                 | 0         | 0                 | 1         | 0                 | 1          |
| Cheese ... ..             | 3                 | 7         | 0                 | 1         | 0                 | 11         |
| Cinnamon ... ..           | 3                 | 0         | 0                 | 0         | 0                 | 3          |
| Cocoa ... ..              | 0                 | 0         | 0                 | 1         | 1                 | 2          |
| Coffee ... ..             | 0                 | 0         | 1                 | 1         | 0                 | 2          |
| Cream of Tartar ... ..    | 3                 | 0         | 4                 | 0         | 0                 | 7          |
| Custard Powder ... ..     | 0                 | 0         | 0                 | 1         | 0                 | 1          |
| Dripping ... ..           | 0                 | 0         | 1                 | 1         | 0                 | 2          |
| Flour ... ..              | 1                 | 0         | 1                 | 2         | 0                 | 4          |
| Gingerbread ... ..        | 0                 | 0         | 0                 | 1         | 0                 | 1          |
| Lard ... ..               | 2                 | 3         | 0                 | 1         | 1                 | 7          |
| Margarine ... ..          | 4                 | 7         | 3                 | 3         | 1                 | 18         |
| Milk (Sweet) ... ..       | 17                | 9         | 20                | 16        | 27                | 89         |
| Mince meat ... ..         | 0                 | 0         | 2                 | 4         | 0                 | 6          |
| Oatmeal ... ..            | 0                 | 0         | 0                 | 2         | 2                 | 4          |
| Pepper ... ..             | 4                 | 0         | 2                 | 0         | 0                 | 6          |
| Pineapple (sliced) ... .. | 0                 | 0         | 0                 | 1         | 0                 | 1          |
| Sausage (sliced) ... ..   | 0                 | 0         | 0                 | 2         | 0                 | 2          |
| Sugar ... ..              | 4                 | 0         | 0                 | 0         | 2                 | 6          |
| Tea ... ..                | 0                 | 0         | 0                 | 1         | 1                 | 2          |
| <b>Total</b> ... ..       | <b>48</b>         | <b>33</b> | <b>35</b>         | <b>40</b> | <b>40</b>         | <b>196</b> |

|                               |    |    |    |    |    |     |
|-------------------------------|----|----|----|----|----|-----|
| Certified Genuine ... ..      | 46 | 33 | 35 | 30 | 40 | 184 |
| Certified Not Genuine ... ..  | 2  | 0  | 0  | 10 | 0  | 12  |
| Proceedings Taken ... ..      | 0  | 0  | 0  | 1  | 0  | 1   |
| Proceedings Successful ... .. | 0  | 0  | 0  | 1  | 0  | 1   |

## INSPECTIONS.

The following is a statement by the Sanitary Inspectors of proceedings under the Public Health and other Acts during the year :—

|  | Central |       | Eastern |       | Western | Total |
|--|---------|-------|---------|-------|---------|-------|
|  | North   | South | North   | South |         |       |

## I. Nuisances.

|   |    |    |     |     |    |     |
|---|----|----|-----|-----|----|-----|
| Subordinate Sanitary Inspectors employed    | 0  | 0  | 0   | 0   | 0  | 0   |
| Complaints received ... ..                  | 20 | 18 | 39  | 9   | 9  | 95  |
| Intimations served under Sec. 19 ... ..     | 50 | 61 | 194 | 385 | 58 | 748 |
| Notices served under Sec. 20 ... ..         | 0  | 1  | 0   | 21  | 4  | 26  |
| Cases in which legal proceedings were taken | 0  | 0  | 0   | 1   | 0  | 1   |
| Do. do. do. successful                      | 0  | 0  | 0   | 1   | 0  | 1   |

## II. Workshops.

|  |    |    |     |     |    |     |
|--|----|----|-----|-----|----|-----|
| Inspections ... ..   | 26 | 64 | 107 | 298 | 25 | 520 |
| Notices served under Sec. 2 (3) of Factory and Workshop Act, 1901 ... .. | 0  | 0  | 7   | 0   | 1  | 8   |
| Cases in which legal proceedings were taken                              | 0  | 0  | 0   | 0   | 0  | 0   |
| Do. do. do. successful   | 0  | 0  | 0   | 0   | 0  | 0   |

## III. Tents and Vans.

|                    |   |    |    |    |    |     |
|--------------------|---|----|----|----|----|-----|
| Inspections ... .. | 4 | 37 | 12 | 12 | 84 | 149 |
|--------------------|---|----|----|----|----|-----|

## IV. Underground Dwellings.

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| Reported to Local Authority ... ..          | 0 | 0 | 0 | 0 | 0 | 0 |
| Notices to Owners (Sec. 74) ... ..          | 0 | 0 | 0 | 0 | 0 | 0 |
| Cases in which legal proceedings were taken | 0 | 0 | 0 | 0 | 0 | 0 |
| Do. do. do. successful                      | 0 | 0 | 0 | 0 | 0 | 0 |

## V. Common Lodging-Houses.

|   |   |   |   |    |   |    |
|---|---|---|---|----|---|----|
| On Register at 31st December, 1924 ... ..                                       | 0 | 0 | 0 | 1  | 0 | 1  |
| Common Lodging-Houses belonging to the Local Authority ... ..                   | 0 | 0 | 0 | 0  | 0 | 0  |
| Inspections between 8 a.m. and 10 p.m. ...                                      | 0 | 0 | 0 | 23 | 0 | 23 |
| Inspections between 10 p.m. and 8 a.m. ...                                      | 0 | 0 | 0 | 0  | 0 | 0  |
| Intimations of Irregularities sent to Keepers                                   | 0 | 0 | 0 | 3  | 0 | 3  |
| Cases of Infectious Disease reported to Medical Officer (Sec. 97) ... ..        | 0 | 0 | 0 | 0  | 0 | 0  |
| Unregistered Premises dealt with ... ..   | 0 | 0 | 0 | 0  | 0 | 0  |
| Cases in which legal proceedings were taken (breaches of bye-laws, etc.) ... .. | 0 | 0 | 0 | 0  | 0 | 0  |
| Do. do. do. successful  | 0 | 0 | 0 | 0  | 0 | 0  |



|  | Central |       | Eastern |       | Western |       |
|--|---------|-------|---------|-------|---------|-------|
|  | North   | South | North   | South |         | Total |

### VI. Houses Let in Lodgings.

|   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|
| On Register at 31st December, 1924 ... ..   | 0 | 0 | 0 | 0 | 0 | 0 |
| Inspections ... ..                          | 0 | 0 | 0 | 0 | 0 | 0 |
| Cases in which legal proceedings were taken | 0 | 0 | 0 | 0 | 0 | 0 |
| Do. do. do. successful                      | 0 | 0 | 0 | 0 | 0 | 0 |

### VII. Infectious Diseases.

|  |     |     |     |     |     |      |
|--|-----|-----|-----|-----|-----|------|
| Visits of Inquiry, etc. ... ..               | 140 | 328 | 246 | 528 | 353 | 1595 |
| Patients removed to Hospital ... ..          | 98  | 94  | 93  | 182 | 70  | 537  |
| Persons removed to House of Reception ...    | 0   | 0   | 0   | 0   | 0   | 0    |
| Notices served under Sec. 50 (2) }           | 134 | 142 | 84  | 184 | 60  | 894  |
| Noticed served under Sec. 53 (2) }           |     |     |     |     |     |      |
| Intimations to School Boards, Teachers, etc. | 400 | 126 | 180 | 369 | 48  | 1123 |
| Houses or Premises disinfected ... ..        | 97  | 105 | 119 | 208 | 104 | 633  |
| Sets of Clothing, Bedding, etc., disinfected |     |     |     |     |     |      |
| or destroyed ... ..                          | 97  | 105 | 122 | 192 | 81  | 597  |
| Cases in which legal proceedings were taken  | 0   | 0   | 0   | 0   | 0   | 0    |
| Do. do. do. successful                       | 0   | 0   | 0   | 0   | 0   | 0    |

### VIII. Burials.

|  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| Burials undertaken in terms of Sec. 69 ... | 2 | 0 | 3 | 2 | 0 | 7 |
|--|---|---|---|---|---|---|

### IX. Dairies, Cowsheds, and Milkshops.

|   |    |     |     |     |     |     |
|---|----|-----|-----|-----|-----|-----|
| On Register at 31st December, 1924 ... ..   | 87 | 86  | 69  | 108 | 123 | 473 |
| Inspections ... ..                          | 63 | 238 | 123 | 148 | 130 | 702 |
| Contraventions of Orders or Regulations     |    |     |     |     |     |     |
| dealt with ... ..                           | 0  | 4   | 6   | 0   | 8   | 18  |
| Cases in which legal proceedings were taken | 0  | 0   | 0   | 0   | 0   | 0   |
| Do. do. do. successful                      | 0  | 0   | 0   | 0   | 0   | 0   |

### X. Slaughter-Houses and Offensive Trades.

|  |     |     |    |     |    |     |
|--|-----|-----|----|-----|----|-----|
| Applications under Sec. 32 for sanction to   |     |     |    |     |    |     |
| establish ... ..                             | 0   | 0   | 0  | 0   | 0  | 0   |
| Applications granted ... ..                  | 0   | 0   | 0  | 0   | 0  | 0   |
| Applications under Sec. 33 for Licence or    |     |     |    |     |    |     |
| Renewal of Licence ... ..                    | 8   | 4   | 4  | 8   | 5  | 29  |
| Applications granted ... ..                  | 8   | 4   | 4  | 8   | 5  | 29  |
| Public Slaughter-Houses (if any) belong-     |     |     |    |     |    |     |
| ing to Local Authority ... ..                | 0   | 0   | 0  | 0   | 0  | 0   |
| Private Slaughter-Houses ... ..              | 9   | 4   | 4  | 8   | 5  | 30  |
| Unlicensed Slaughter-Houses dealt with...    | 0   | 0   | 0  | 0   | 0  | 0   |
| Inspections of Slaughter-Houses ... ..       | 106 | 157 | 51 | 222 | 78 | 614 |
| Inspections of other Offensive Businesses... | 0   | 0   | 3  | 0   | 0  | 3   |
| Number of other Offensive Businesses         |     |     |    |     |    |     |
| at 31st December, 1924 ... ..                | 0   | 0   | 1  | 0   | 0  | 1   |



|  | Central<br>North | South | Eastern<br>North | South | Western | Total |
|--|------------------|-------|------------------|-------|---------|-------|
| <b>X. Slaughter-Houses and Offensive Trades— (Continued).</b>                      |                  |       |                  |       |         |       |
| Cases in which legal proceedings were taken<br>(breaches of bye-laws, etc.) ... .. | 0                | 0     | 0                | 0     | 0       | 0     |
| Do. do. do. successful   | 0                | 0     | 0                | 0     | 0       | 0     |

## XI. Unsound Food.

|   |     |     |    |     |    |     |
|---|-----|-----|----|-----|----|-----|
| Inspections under Sec. 43 (a) Meat ... ..   | 133 | 157 | 65 | 291 | 35 | 681 |
| (b) Other foods...  | 0   | 14  | 0  | 23  | 10 | 47  |
| Seizures of Unsound Food (a) Meat ... ..  | 1   | 3   | 0  | 0   | 0  | 4   |
| (b) Other foods...  | 0   | 0   | 0  | 0   | 1  | 1   |
| Animals or carcasses or articles of food<br>destroyed with owner's consent by or<br>at the instance of the Sanitary Inspector | 1   | 3   | 0  | 1   | 0  | 5   |
| Cases in which owners of Unsound Food<br>were prosecuted ... ..   | 0   | 0   | 0  | 0   | 0  | 0   |
| Convictions in connection with above cases  | 0   | 0   | 0  | 0   | 0  | 0   |

## XII. Sale of Food and Drugs Acts.

|   |    |    |    |    |    |     |
|---|----|----|----|----|----|-----|
| Samples procured for Analysis ... ..        | 48 | 33 | 35 | 40 | 40 | 196 |
| Certified to be genuine ... ..              | 46 | 33 | 35 | 30 | 40 | 184 |
| Certified to be adulterated ... ..          | 2  | 0  | 0  | 10 | 0  | 12  |
| Cases in which legal proceedings were taken | 0  | 0  | 0  | 1  | 0  | 1   |
| Do. do. do. successful                      | 0  | 0  | 0  | 1  | 0  | 1   |

### XIII. Rag Flock Act, 1911.

|  |   |   |   |   |   |   |
|--|---|---|---|---|---|---|
| Samples procured for analysis ... ..         | 0 | 0 | 0 | 0 | 0 | 0 |
| Certified to conform to Board's standard...  | 0 | 0 | 0 | 0 | 0 | 0 |
| Certified not to conform to Board's standard | 0 | 0 | 0 | 0 | 0 | 0 |
| Cases in which legal proceedings were taken  | 0 | 0 | 0 | 0 | 0 | 0 |
| Do. do. do. successful                       | 0 | 0 | 0 | 0 | 0 | 0 |

#### XIV. Bye-Laws.

|   |    |     |     |     |     |      |
|---|----|-----|-----|-----|-----|------|
| Inspections in carrying out bye-laws relating to:—    |    |     |     |     |     |      |
| (a) Pigstyes .. .. .                                  | 20 | 32  | 89  | 263 | 10  | 414  |
| (b) Public Conveyances .. .. .                        | 0  | 12  | 0   | 0   | 0   | 12   |
| (c) Buildings .. .. .                                 | 46 | 190 | 427 | 493 | 113 | 1269 |
| (d) Cleansing in Special Scavenging Districts .. .. . | 48 | 157 | 348 | 413 | 150 | 1116 |
| (e) Other sanitary matters .. .. .                    | 0  | 0   | 73  | 287 | 48  | 408  |

# DISTRICT REPORTS.

## CENTRAL DISTRICT.

### HOUSING.

**New Buildings—Northern Area.**—During the year 10 sets of plans were approved by the District Committee. Of these, 8 were for new dwelling-houses and 2 were for additions and alterations to existing buildings. The number of dwellings embraced in the plans for new buildings was 11, of which one—a bothy—was of one apartment, two were of four apartments, and eight were of more than four apartments.

**Southern Area.**—In the Southern Area of the District eight plans were considered and approved, the plans consisting of two for watermen's cottages, one for a cemetery lodge, one for a manse, two for Miners' Welfare Institutes, and two for alterations and additions. The number of new dwelling-houses was thus five, three being of three apartments, and two of over four apartments.

**Local Authority's Housing Schemes.**—Mr Glass has again very kindly supplied me with the following statement as to the Housing Schemes in the District :—

“ During 1924 the whole of the remaining houses built under the 1919 Housing Act have been completed and occupied. The number of houses erected under this Act in the Central District is as follows :—

|                                     | 3 Apart. | 4 Apart. | 5 Apart. | Total |
|-------------------------------------|----------|----------|----------|-------|
| Causewayhead ... ..                 | 10       | 18       | 2        | 30    |
| Cambusbarron ... ..                 | 10       | 10       | —        | 20    |
| East Plean... ..                    | 18       | 12       | 2        | 32    |
| Bannockburn ... ..                  | 28       | 22       | —        | 50    |
| Cowie... ..                         | 17       | 3        | —        | 20    |
| Bonnybridge<br>(Highland Dykes) ... | 17       | 9        | 2        | 28    |
| Totals ... ..                       | 100      | 74       | 6        | 180   |

“ The rentals of houses under the various Schemes differ according to comparable rents of houses in the neighbouring localities, and are as follows :—

|                     | 3 Apart. | 4 Apart. | 5 Apart. |
|---------------------|----------|----------|----------|
| Causewayhead... ..  | £22      | £26      | £30      |
| Cambusbarron ... .. | £22      | £26      | —        |
| East Plean... ..    | £19      | £23 10/  | £28      |
| Bannockburn ... ..  | £19      | £23 10/  | —        |
| Cowie... ..         | £17 10/  | £22      | —        |
| Bonnybridge ... ..  | £20      | £24      | £28      |

" It is not yet possible to give the final costs for the whole of the Schemes, as final adjustments have not yet been made in all cases. The Board of Health have approved the costs for Causewayhead, Cambusbarron, and Highland Dykes 1st Development, while the measurements for East Pleun and Bannockburn Schemes are at present in the hands of the Board of Health, and for the remaining two Schemes at Cowie and Highland Dykes 2nd Development the costs are complete, subject to any adjustments still to be arranged with one or two Contractors.

" Under the Housing and Financial Provisions Act, 1924, the Central District Committee are extending their building programme, and have accepted tenders for 75 houses, allocated as follows :—

|                    | 3 Apart. | 4 Apart. | Total |
|--------------------|----------|----------|-------|
| Cowie... ..        | 10       | 2        | 12    |
| Bannockburn ... .. | 33       | 8        | 41    |
| Bonnybridge ... .. | 14       | 8        | 22    |
| Totals ... ..      | 57       | 18       | 75    |

" Very speedy progress is being made with those at Cowie and Highland Dykes, and it is anticipated that similar progress will be made at Bannockburn, when the work is commenced in the early part of 1925.

" Under the Housing, etc., Act, 1923, private building has not taken place as rapidly as might be expected. For the period under review from the commencement of the Act, 15 houses have been passed for the subsidy of £100 per house, and Certificate " A " has been issued, while Certificate " B " has been issued for 10 completed houses. The following particulars relating to these houses may be of interest :—

| Type                | No. of Houses for which Certificate "A" issued | No. of Houses for which Certificate "B" issued | Houses under construction | No. of Houses completed |
|---------------------|--|--|---------------------------|-------------------------|
| Two-Storey Houses : |  |  |                           |                         |
| 3 apartments ... .. | 2  | 1  | 2                         | ...                     |
| 4 apartments ... .. | 5  | 2  | ...                       | 5                       |
| 5 apartments ... .. | 5  | 4  | 2                         | 3                       |
| One-Storey Houses : |  |  |                           |                         |
| 3 apartments ... .. | 3  | 3  | 1                         | 2                       |
| Totals ... ..       | 15   | 10   | 5                         | 10                      |

**Housing, Town-Planning, Etc., Acts.** — Only one house was represented to the Local Authority with a view to making a closing order. In this case the house was put into a fit state for human habitation after the closing order had been made, and the order was accordingly determined.

Under the 1919 Act intimations were made in the case of 20 houses with insufficient water-closet accommodation. The cases are still pending.

## WATER SUPPLY.

Generally speaking, the whole District has been well supplied with water, although the supplies to certain outlying houses and farms can not be said to be satisfactory.

At the village of Chartershall, near Whins of Milton, complaint had been made of the condition of the supply which was obtained from a dip well at the side of the River Bannock. On analysis, as will be seen from No. 11 of the Table of Water Analyses, the water was found polluted, and arrangements were accordingly made for a proper gravitation supply.

So far the houses known as Rosehill, near Plean, have not been provided with gravitation water. These houses obtain their water from the Sauchenford Burn, which is often badly polluted.

## WATER ANALYSES.

In all, eleven samples of water were analysed by the County Analysts, Messrs Tatlock & Thomson. The figures showing the results obtained are given in Table XIV.

Six of these samples were found to be quite free from contamination and suitable for drinking and dietetic purposes. These were taken from the following sources :—

1. Pump well at Quarter House.
2. Pump well at Patrickston Farm, Gargunnoch.
5. Pump at Wester Culmore Farm, Kippen.
6. River Forth at Wester Culmore Farm, Kippen.
8. Dip well at Potato Diggers' Hut, Oxhill, Buchlyvie.
10. Burn, 65 yds. above Potato Diggers' Hut, Oxhill, Buchlyvie.

Sample No. 3 was taken from the burn at Burnhead Farm, Throsk, which was the only supply to the farm. Analysis showed that the water was not suitable for drinking, and on representation being made to the owners they agreed to have gravitation water provided.

No. 4 was also a sample of burn water which was the only supply to Throsk Smithy. This sample was polluted to a considerable extent, and here also gravitation water has been laid on.

The reason for taking Sample No. 7 was in order to ascertain what effect the entrance of the Bannockburn Sewer had on the composition of the burn water. At the time the sample was taken there was very little discharge from the sewer, but even then the amount of pollution was surprisingly small.

Sample No. 9 was taken from an open hole or dip well supplying a potato diggers' hut at Arnprior. The sample was found contaminated with animal matter to an appreciable extent, and therefore unsuitable for dietetic purposes. On communicating with the potato merchants responsible for the upkeep of the hut, they assured me that the place would not be used for housing their workers for some time, and that in the meantime they would make inquiries about a new water supply.

No. 11, from a dip well at the side of the Bannock, which supplies the village of Chartershall, was taken on account of complaints of pollution. Analysis showed that the water had been polluted. On this account, and owing to the unsatisfactory source of the supply generally, steps were taken to have a gravitation supply introduced to the village.

Table XIV.—CENTRAL DISTRICT—WATER ANALYSES (IN GRAINS PER GALLON)—1924.

| No. | Date of Report | Where Taken.  | Mineral Matter | Organic Matter | Total Solids | Nitrates | Free Ammonia | Albuminoid Ammonia | Total Ammonia | Temporary Hardness | Permanent Hardness | Total Hardness | Colour            | Degree of Sewage Contamination |
|-----|----------------|---|----------------|----------------|--------------|----------|--------------|--------------------|---------------|--------------------|--------------------|----------------|-------------------|--------------------------------|
| 1   | 26/1/24        | Pump Well, Quarter House, Dunipace                              | 6.54           | .36            | 6.90         | ...      | .001         | .004               | .005          | 2.27               | 2.51               | 4.78           | None              | 0                              |
| 2   | 11/3/24        | Pump Well, Patrickston Farm, Gargunnoch, ...                    | 14.65          | .42            | 15.07        | .02      | .001         | .006               | .007          | 8.75               | 3.87               | 12.62          | Faint Brown       | 0                              |
| 3   | 9/4/24         | Burn, Burnhead Farm, Throsk, ...                                | 12.64          | 1.06           | 13.70        | 1.20     | .008         | .016               | .024          | 4.20               | 5.67               | 9.87           | Brown Tint        | 1 to 20                        |
| 4   | 9/4/24         | Burn, Smithy, Throsk, ...                                       | 13.05          | 2.10           | 15.15        | .92      | .027         | .023               | .150          | 4.12               | 6.13               | 10.25          | Strong Brown Tint | 1 to 16                        |
| 5   | 15/4/24        | Pump, Wester Culmore Farm, Kippen, ...                          | 4.43           | .90            | 5.33         | .03      | .002         | .011               | .013          | 1.75               | 1.80               | 3.55           | Slight Brown      | 0                              |
| 6   | 15/4/24        | River Forth, Wester Culmore Farm, Kippen, ...                   | 4.36           | .90            | 5.26         | .03      | .003         | .011               | .014          | 1.75               | 1.77               | 3.52           | Slight Brown      | 0                              |
| 7   | 30/6/24        | River Bannock (60 yds. below outfall of Bannockburn Sewer), ... | 12.05          | .81            | 12.86        | .06      | .003         | .038               | .041          | 3.64               | 3.27               | 6.91           | Slight Brown      | 1 to 300                       |
| 8   | 24/11/24       | Dip Well, Potato Diggers' Hut, Oxhill, Buchlyvie, ...           | 6.18           | .45            | 6.63         | .04      | .002         | .006               | .008          | 3.71               | .94                | 4.65           | Slight Brown      | 0                              |
| 9   | 24/11/24       | Dip Well, Potato Diggers' Hut, Arnprior, Kippen, ...            | 11.75          | .64            | 12.39        | 1.05     | .018         | .014               | .032          | 5.92               | 2.85               | 8.77           | None              | 1 to 22                        |
| 10  | 24/11/24       | Burn, 65 yds. above Potato Diggers' Hut, Oxhill, Buchlyvie, ... | 7.19           | .30            | 7.49         | .05      | None         | .005               | .005          | 3.84               | 1.60               | 5.44           | None              | 0                              |
| 11  | 1/12/24        | Dip Well at side of Bannock, Chartershall ...                   | 7.82           | .40            | 8.22         | .63      | .001         | .006               | .007          | 1.15               | 3.90               | 5.05           | None              | 1 to 40                        |



## DRAINAGE.

As mentioned in my last Annual Report, the Local Authority had under consideration a proposal to carry the effluent of the Bannockburn Sewage Works to a point below where the Kerse Mill water is returned to the Bannock. During 1924 the proposal was given effect to, and the sewage effluent is now discharged at a point where the stream is tidal.

The question as to the provision of proper drainage for the Village of Cambusbarron remains as before.

In connection with a proposal to provide complete drainage facilities for High and Low Banton, a report was obtained from Mr Glass, Stirling, but as the estimated cost of the necessary works was practically prohibitive, the matter was allowed to drop.

At Queenzieburn the recently constructed Sewage Disposal Works continue to function satisfactorily, and the owners see that they are looked after.

The various special drainage districts have been kept under careful surveillance by the Sanitary Inspectors, as also have been the drainage conditions outwith the special districts. Certain new sewers have been laid, sewers silted up have been cleared, and many minor repairs have been carried out, all under their care.

## SCAVENGING.

Mr Barr reports that at Cambusbarron he has a difficulty in getting farmers to remove the contents of privies and ash-pits. Apparently their objection is chiefly on account of the amount of unsuitable material amongst the refuse.

Generally, however, the scavenging of the district is satisfactory, although in such a service it is difficult to avoid cause for complaint in greater or less degree.

## NUISANCES.

The number of nuisances for which intimation under Section 19 of the Public Health Act was given was 111, in addition to a great many more which were remedied on request without the need for statutory intimation.

The chief causes of nuisance were foul ashpits, choked drains, drains improperly trapped, etc., damp walls of houses, overcrowding, refuse on the banks of the Forth, and private roads or streets out of repair.



**Overcrowding.** — In accordance with a remit from the Housing Committee, I had an investigation made at Fallin with regard to alleged overcrowding of the houses there. Mr Barr made a detailed house-to-house visitation, and gave the results of his inspection on two schedules giving the details of (1) Houses accommodating two families, but which could not be said to be overcrowded so far as actual cubic space was concerned, and (2) houses with one or more families which were overcrowded to a greater or less extent. In the first category nine houses were found. In the second category there were 52 houses overcrowded, taking the limit of occupancy, as determined by the Royal Commission figure, as three persons per apartment; while only 12 of the 52 houses could be considered as overcrowded if the limit of occupancy were taken as four persons per apartment. In nine of the houses placed in the second category two families were accommodated. For the purpose of the investigation two children under ten years were counted as one adult.

#### CONDITIONS IN MINING AREAS.

During the year detailed reports were prepared with regard to the sanitary conditions in mining areas with special reference to roads and footpaths, sanitary conveniences and removal of household refuse. The following is a brief summary of the reports :—

**East Plean.**—Roads and footpaths fairly good. Sanitary conveniences are chiefly water-closets within the Special Scavenging District, where the system of refuse removal is an alternate day system. Outwith the Special District the conveniences are mostly privy ashpits, the owners being responsible for scavenging.

**Bore Row, West Plean.**—Roads, etc., are maintained by the Local Authority. Pail privies and ashpits are in use, which are emptied by contractors employed by owners. To abolish present system, although desirable, is economically impracticable.

**Dennyloanhead, Longcroft and Haggs.**—Roads, etc., are maintained by the Local Authority. The conveniences are principally water-closets, with an alternate day system of refuse removal.

**Banknock.**—The road and footpath of the Back Row is looked after by the Banknock Coal Company, and is fairly good. In the front Row the road, etc., is maintained by the Local Authority. Water-closets are in use here, and there is an alternate day system of refuse removal.

**Banton.**—Roads are maintained by the Local Authority. Privy ashpits are mainly used, the removal of contents being arranged by owners and tenants. The houses are old, some being not reasonably fit for habitation, but until new houses are built it will not be practicable to effect improvements in the sanitary conveniences.

**Queenzieburn Rows.**—Water-closets are now in use here, and the scavenging is undertaken by the owners. These rows have been greatly improved within the last year or so by the provision by the owners of water-closets and drainage.

**Gavell.**—Roads, etc., are fair. Conveniences consist of privy ashpits, which are emptied monthly by the owners. It is possible that in a few years these houses may not be required.

**Bannockburn.**—The roads and footways not on the list of highways are in a poor condition. With the exception of Muiralehouse, the village is provided with a water-carriage system, with a daily removal of refuse.

**Millhall Cottages and Fallin Rows and Cottages.**—There is room for improvement of the side roads, courtyards and footways here, as in wet weather they become soft and muddy. Water-closets are provided, one for two houses being the rule, and there are portable ash buckets. The owners attend regularly to the removal of refuse.

**Cowie and Hill Terrace.**—Roads between rows are fair, and the main road into the village, I understand, will shortly be put into proper order. The ash footpaths are apt to become soft after frost. At Cowie there is a privy ashpit system, and at Hill Terrace a pail and ashpit system. At the end of the year one row had water-closets and sculleries provided. The Alloa Coal Company have undertaken to provide all the houses in Cowie and Hill Terrace (about 450 in number) each with a water-closet and scullery within a period of five years. Refuse removal is done by contract.

**Manor Powis.** — These cottages have well-kept gardens between them and the public highway. A water-closet, sink and wash-tub is provided for each house. The ash buckets are attended to by the Coal Company.

#### DAIRIES.

The number of registered dairy premises in the district as at 31st December was 173.

So far, in the Central District, no applications have been received for permission to sell graded milk.

## SLAUGHTER-HOUSES AND MEAT INSPECTION.

The number of private slaughter-houses in the area of the Local Authority is 13, which includes the new slaughter-house at Causewayhead for the Scottish Bacon Curing Factories, Ltd. These are inspected from time to time by the Sanitary Inspectors, who act as detention officers. In this way 263 visits were made. In all four seizures were made of unsound beef, 16 cwts. 2 qrs. being of tuberculous beef, and 50 lbs. of beef in a decomposed state. In each case the meat was destroyed with the owner's consent. No legal proceedings were necessary.

## FACTORY AND WORKSHOP ACT.

One hundred and twenty-one inspections were made of factories and workshops — 31 of factories and 90 of workshops. Six nuisances under the Public Health Act were found—want of cleanliness, 4; want of drainage of floors, 1; and unsuitable or defective sanitary accommodation, 1. All the defects were remedied without resort to legal proceedings.

## INFECTIOUS DISEASE.

The total number of cases of infectious disease notified during the year 1924 was 339, and the details are given in Tables XV. and XVI., the former giving the numbers for each disease under different age groups, and the latter showing the distribution of the diseases over the various parishes in the district. The total number of cases is rather higher than in the previous two years, but is slightly lower than the average for the past five years.

**Scarlet Fever.**—One hundred and thirty-four cases were notified, of which 76 were in the Parish of St Ninians, 28 in Kilsyth Parish, 22 in Denny Parish, 5 in the Parish of Logie, and one each in the Parishes of Stirling, Gargunnoch and Kippen. Of the 134 cases 125 were treated in hospital. There were three deaths, equal to a fatality rate of 2.2 per cent. of the notified cases, or a general mortality rate of 0.11 per thousand of population.

**Diphtheria.**—Only 46 cases were notified, most of these being in the Parish of St Ninians. All but three were removed to hospital. There was no special outbreak, the cases occurring throughout the year, and having little apparent connection. The number of deaths from this disease was two.

**Enteric Fever.**—Four cases occurred, two in St Ninians Parish, and two in Kilsyth Parish. This is now quite a rare disease as compared with say ten years ago. Three of the four cases were removed to hospital.

**Tuberculosis.** — Eighty notifications of tuberculosis were received, of which 30 were of pulmonary tuberculosis. The number of persons in the district as at 31st December who were suffering from pulmonary tuberculosis was 134, and from non-pulmonary types of the disease, 250. In addition, five persons were afflicted with both pulmonary and non-pulmonary tuberculosis. Details as to treatment will be found under the County part of this Report.

**Measles, Whooping-Cough and Chickenpox.**—From time to time I have received notification of these diseases amongst school children from the head teachers, who have co-operated very thoroughly with the public health department in this respect. On such notification being received I communicate with the Sanitary Inspectors, who make preliminary inquiries and report to me. They also visit the infected households, and leave prints of precautions against spread of infection. During the year a considerable number of such visits have been made, and on five occasions I considered it advisable to close a school or part of a school with a view to preventing infection of healthy children. The schools where such action was taken were East Plean, West Plean, Kippen, Buchlyvie and Arnprior.

Table XV.—CENTRAL DISTRICT.

RETURN OF CASES OF INFECTIOUS DISEASE NOTIFIED, &c.,  
DURING THE YEAR ENDING 31st DECEMBER, 1924.

| DISEASE  | NUMBER OF CASES COMING TO THE KNOWLEDGE<br>OF THE MEDICAL OFFICER OF HEALTH |              |               |                |                 |                 |                 |                |                              |                                  |
|--|---|--------------|---------------|----------------|-----------------|-----------------|-----------------|----------------|------------------------------|----------------------------------|
|  | At all Ages   | At Age—Years |               |                |                 |                 |                 |                | Cases removed to<br>Hospital | Cases not removed to<br>Hospital |
|  |   | Under 1 Year | 1 and under 5 | 5 and under 15 | 15 and under 25 | 25 and under 45 | 45 and under 65 | 65 and upwards |                              |                                  |
| A.—Diseases specified in the Infectious Disease (Notification) Act, 1889.  |   |              |               |                |                 |                 |                 |                |                              |                                  |
| Typhoid or Enteric Fever   | 4   | ...          | ...           | 1              | 3               | ...             | ...             | ...            | 3                            | 1                                |
| Typhus Fever ... ..  | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| Smallpox ... ..  | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| Scarlet Fever or Scarletina  | 134   | 1            | 34            | 81             | 17              | 1               | ...             | ...            | 125                          | 9                                |
| Diphtheria and Membranous<br>Croup ... ..  | 46  | ...          | 11            | 20             | 6               | 7               | 2               | ...            | 43                           | 3                                |
| Erysipelas ... ..  | 35  | ...          | 1             | 4              | 2               | 13              | 14              | 1              | 11                           | 24                               |
| Puerperal Fever ... ..   | 4   | ...          | ...           | ...            | ...             | 4               | ...             | ...            | 2                            | 2                                |
| Cholera ... ..   | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| Relapsing Fever ... ..   | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| Continued Fever ... ..   | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| B.—Diseases Notifiable in terms of Regulations made under Section 78<br>of the Public Health (Scotland) Act, 1897. |   |              |               |                |                 |                 |                 |                |                              |                                  |
| Ophthalmia Neonatorum  | 4   | 4            | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | 4                                |
| Infective Jaundice ... ..  | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| Malaria ... ..   | 1   | ...          | ...           | ...            | 1               | ...             | ...             | ...            | ...                          | 1                                |
| Dysentery ... ..   | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| Trench Fever ... ..  | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| Acute Primary Pneumonia  | 22  | 1            | 8             | 3              | 6               | 3               | 1               | ...            | 1                            | 21                               |
| Acute Influenzal Pneumonia   | 7   | 1            | 2             | 1              | ...             | 2               | 1               | ...            | ...                          | 7                                |
| Pulmonary Tuberculosis...  | 30  | ...          | ...           | 7              | 10              | 9               | 4               | ...            | 24                           | 6                                |
| Non-Pulmonary Tuber-<br>culosis... ..  | 50  | 2            | 9             | 22             | 12              | 5               | ...             | ...            | 34                           | 16                               |
| Total of A and B ...   | 337   | 9            | 65            | 139            | 57              | 44              | 22              | 1              | 243                          | 94                               |

Cases notified in a previous year and removed to Hospital, ...

Cases notified in a previous  
year and removed to Hospital,  
1924.

**C.—Diseases to which the Provisions of the Infectious Disease (Notification) Act have been extended by the Local Authority.**

|                          |   |     |   |   |     |     |     |     |   |     |
|--------------------------|---|-----|---|---|-----|-----|-----|-----|---|-----|
| Cerebro-Spinal Fever ... | 2 | ... | 1 | 1 | ... | ... | ... | ... | 2 | ... |
|--------------------------|---|-----|---|---|-----|-----|-----|-----|---|-----|

State Name of Hospital or Hospitals in which Cases were treated.

Bannockburn Fever Hospital.

Ochil Hills Sanatorium.

Number of Persons resident in the District as at 31st December, 1924, who were known to be suffering from Tuberculosis. (Persons in Sanatoria, &c., should be included in the figures for the area in which they have their home residence.)

Pulmonary Tuberculosis only, ... .. 134

Non-Pulmonary Tuberculosis only, ... .. 250

Both Pulmonary and Non-Pulmonary Tuberculosis, ... .. 5

389



**Table XVI.—CENTRAL DISTRICT—CASES OF INFECTIOUS DISEASE COMING TO THE KNOWLEDGE OF THE  
MEDICAL OFFICER OF HEALTH DURING THE YEAR 1924.**

| Parish              | Smallpox | Diphtheria and<br>Membranous Croup | Erysipelas | Scarlet Fever | Typhus Fever | Enteric Fever | Continued Fever | Puerperal Fever | Cerebro-Spinal<br>Fever | Ophthalmia<br>Neonatorum | Chickenpox | Malaria | Dysentery | Trench Fever | Acute Primary<br>Pneumonia | Acute Influenzal<br>Pneumonia | Tuberculosis |               | Total |
|---------------------|----------|------------------------------------|------------|---------------|--------------|---------------|-----------------|-----------------|-------------------------|--------------------------|------------|---------|-----------|--------------|----------------------------|-------------------------------|--------------|---------------|-------|
|                     |          |                                    |            |               |              |               |                 |                 |                         |                          |            |         |           |              |                            |                               | Pulmonary    | Non-Pulmonary |       |
| Logie               | ...      | ...                                | 1          | 5             | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | ...                        | ...                           | ...          | 1             | 7     |
| Stirling            | ...      | ...                                | 1          | 1             | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | ...                        | ...                           | 2            | ...           | 5     |
| St. Ninians         | ...      | 38                                 | 26         | 76            | ...          | 2             | ...             | 3               | 2                       | ...                      | ...        | 1       | ...       | ...          | ...                        | 5                             | 21           | 45            | 230   |
| Denny               | ...      | 3                                  | 3          | 22            | ...          | ...           | ...             | ...             | ...                     | 3                        | ...        | ...     | ...       | ...          | ...                        | 1                             | ...          | 1             | 40    |
| Dunipace            | ...      | ...                                | ...        | ...           | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | ...                        | 1                             | ...          | 1             | 1     |
| Kilsyth             | ...      | 4                                  | 2          | 28            | ...          | 2             | ...             | 1               | ...                     | 1                        | ...        | ...     | ...       | ...          | ...                        | 1                             | 4            | 1             | 47    |
| Gargunnoch          | ...      | 1                                  | ...        | 1             | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | ...                        | ...                           | 1            | ...           | 3     |
| Kippen              | ...      | ...                                | 2          | 1             | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | ...                        | ...                           | 2            | 1             | 6     |
| Totals              | ...      | 46                                 | 35         | 134           | 4            | 4             | ..              | 4               | 2                       | 4                        | ..         | 1       | ...       | ...          | 22                         | 7                             | 30           | 50            | 339   |
| Removed to Hospital | ...      | 43                                 | 11         | 125           | ...          | 3             | ...             | 2               | 2                       | ...                      | ...        | ...     | ...       | ...          | 1                          | ...                           | 24           | 34            | 245   |

## BANNOCKBURN HOSPITAL.

The total number of patients admitted to Bannockburn Hospital during 1924 was 251, of which 221 were from the Central District, 25 from the Burgh of Denny, and five (all cases of tuberculosis) from the Burgh of Kilsyth.

Besides these 251 cases there were in the wards at the beginning of the year 16 cases admitted in the previous year, but at 31st December there were 27 cases remaining, so that the number treated to a termination was 240. The number of days residence of these was 10,631, so that the average duration of treatment was 40 days. Including the days' residence of the cases remaining at 31st December, but excluding the residence of those remaining up to 1st January, it is found that the net days' residence within the year was 9760, so that the average number of patients in the hospital was 26.

Of the 240 cases treated to a termination, 128 were of scarlet fever, 58 were of diphtheria, 4 were of enteric fever, 32 were of tuberculosis, while 18 other cases, i.e., erysipelas, measles, puerperal fever, meningitis and encephalitis lethargica were treated.

The average residence of the 128 cases of scarlet fever was 46 days. Two deaths occurred, giving a fatality rate of 1.5 per cent.

The 58 cases of diphtheria treated to a termination were in the wards a total of 1429 days, giving an average residence of 24.6 days. There were three fatal cases.

The four enteric fever cases all recovered after being under treatment for an average of 63.7 days.

The total days' residence of the 32 cases of tuberculosis was 2561, or an average residence of 80 days. No deaths occurred in hospital. The whole of these tuberculosis cases were treated in the Bolton Sectioned Pavilion in addition to the 18 "other cases" mentioned in Table XVII.

It will be seen that no fewer than eleven different diseases were treated in the hospital. This, of course, was only possible by the use of the sectioned pavilion to its fullest extent.



Table XVII.—BANNOCKBURN FEVER HOSPITAL, 1924.

|                                       | Scarlet Fever |                  | Diphtheria |                  | Enteric Fever |                  | Tuberculosis |                  | Others* |                  | Total |                  |
|---------------------------------------|---------------|------------------|------------|------------------|---------------|------------------|--------------|------------------|---------|------------------|-------|------------------|
|                                       | Cases         | Days' rest-dence | Cases      | Days' rest-dence | Cases         | Days' rest-dence | Cases        | Days' rest-dence | Cases   | Days' rest-dence | Cases | Days' rest-dence |
| Cases remaining 1st January, 1924 ... | 5             | 285              | 5          | 218              | ...           | ...              | 6            | 886              | ...     | ...              | 16    | 1,389            |
| Admitted during year                  | 142           | 6,066            | 57         | 1250             | 4             | 255              | 28           | 1711             | 20      | 511              | 251   | 9,793            |
| Total ...                             | 147           | 6,351            | 62         | 1468             | 4             | 255              | 34           | 2597             | 20      | 511              | 267   | 11,182           |
| Cases remaining, 31st December, 1924  | 19            | 446              | 4          | 39               | ...           | ...              | 2            | 36               | 2       | 30               | 27    | 551              |
| Cases treated to a termination ...    | 128           | 5,905            | 58         | 1429             | 4             | 255              | 32           | 2561             | 18      | 481              | 240   | 10,631           |

\* Erysipelas, Measles, Whooping Cough, Puerperal Fever, Chickenpox, Meningitis, and Encephalitis Lethargica.

Table XVIII.—ADMISSIONS TO BANNOCKBURN HOSPITAL, 1924.

| Age in Years                        |  | 0—5 |     | 5—10 |     | 10—20 |     | 20—30 |     | 30—40 |     | 40 & Over |     | Total. |     |
|-------------------------------------|--|-----|-----|------|-----|-------|-----|-------|-----|-------|-----|-----------|-----|--------|-----|
| Disease.                            |  | M.  | F.  | M.   | F.  | M.    | F.  | M.    | F.  | M.    | F.  | M.        | F.  | M.     | F.  |
| <i>Scarlet Fever</i> —Recovered ... |  | 17  | 9   | 24   | 30  | 13    | 22  | 3     | 2   | ...   | ... | ...       | 1   | 57     | 64  |
| Died ...                            |  | 1   | ... | ...  | ... | ...   | 1   | ...   | ... | ...   | ... | ...       | ... | 1      | 1   |
| Remaining ..                        |  | 3   | 2   | 2    | 8   | ...   | 3   | ...   | 1   | ...   | ... | ...       | ... | 5      | 14  |
| <i>Diphtheria</i> —Recovered ...    |  | 5   | 6   | 7    | 9   | 7     | 3   | 4     | 5   | 2     | ... | 1         | 1   | 26     | 24  |
| Died ...                            |  | ... | 2   | ...  | ... | ...   | 1   | 1     | ... | ...   | ... | ...       | ... | 1      | 2   |
| Remaining ...                       |  | ... | ... | 1    | 1   | 1     | ... | ...   | 1   | ...   | ... | ...       | ... | 2      | 2   |
| <i>Enteric Fever</i> —Recovered     |  | ... | ... | 2    | ... | ...   | 1   | ...   | 1   | ...   | ... | ...       | ... | 2      | 2   |
| <i>Tuberculosis</i> —Discharged...  |  | 4   | 1   | 3    | 3   | 5     | 5   | ...   | 2   | ...   | 1   | 1         | 1   | 13     | 13  |
| Remaining...                        |  | ... | ... | ...  | ... | ...   | ... | ...   | 2   | ...   | ... | ...       | ... | ...    | 2   |
| <i>Others</i> —Recovered ...        |  | ... | 1   | 2    | ... | 2     | ... | ...   | 1   | 2     | 2   | 2         | 2   | 8      | 8   |
| Died ...                            |  | ... | 1   | ...  | ... | ...   | ... | ...   | ... | ...   | 1   | ...       | ... | ...    | 2   |
| Remaining ...                       |  | ... | ... | ...  | ... | ...   | ... | ...   | ... | 1     | ... | 1         | ... | 2      | ... |
| Total ...                           |  | 30  | 22  | 41   | 51  | 28    | 35  | 8     | 15  | 5     | 4   | 5         | 5   | 117    | 134 |

**Table XIX.—CENTRAL DISTRICT. BIRTHS, MARRIAGES, AND DEATHS  
DURING THE YEAR 1924.**

| Principal Rates per 1000 of Estimated Population. |           |     |             |                         |   |
|---|-----------|-----|-------------|-------------------------|---|
| Numbers Registered in District                    | Transfers |     | Uncorrected | Corrected for Transfers | Corrected for Transfers and adjusted for Age and Sex Distribution |
|   | Out       | In  |             |                         |   |
| Total Births (including Illegitimate)             | 17        | 26  | 26.4        | 26.8                    | ...   |
| Illegitimate Births                               | ...       | 10  | ...         | 4.9                     | ...   |
| Marriages   | ...       | ... | ...         | ...                     | ...   |
| Deaths  | ...       | ... | ...         | 13.9                    | 15.0  |
|   | ...       | ... | ...         | 1.04                    | ...   |
|   | 9         | 69  | ...         | 0.41                    | ...   |
|   |           |     | ...         | 0.89                    | ...   |
|   |           |     | ...         | 75                      | ...   |



## VITAL STATISTICS.

For the year 1924 the population of the Central District is estimated by the Registrar-General for statistical purposes at 26,822, which is probably an under-estimate.

**Births and Birth Rates.**—The number of births registered was 709, the corrected number after adjustment for transfers being 718—373 being males and 345 females. This gives a birth rate of 26.8 per 1000 of population, which is rather above the average of the previous six years.

**Deaths and Death Rates.** — After correction for transfers the total number of deaths was 373, which is equal to a death rate of 13.9 per 1000. The average rate for the previous ten years was 11.5, the highest rates being 12.1 in 1918, and 12.4 in 1915, so that the rate for 1924 is the heaviest experienced for some time.

From all forms of tuberculosis the death rate was 1.04, the rate for tuberculosis of the respiratory system alone being 0.41.

From the "Principal Epidemic Diseases" (those asterisked in Table XIX.) including such diseases as enteric fever, scarlet fever, diphtheria, measles, etc., the rate was 0.89 per 1000, the disease which contributed chiefly to this rate being whooping-cough, from which there were 10 deaths.

The infantile mortality rate (deaths under one year per 1000 births) was 75, which is just about the average for the past nine years.

## EASTERN DISTRICT.

## HOUSING.

**New Buildings—Northern Division.**—Under the Building Bye-laws plans were passed for 29 new dwelling-houses to be erected by private enterprise. Of these, 22 were of three apartments, 6 were of four apartments, and one was of more than four apartments. Other plans passed included a Miners' Welfare Institute at Letham, and additions and alterations to existing buildings at Larbert and Bonnybridge.

**Southern Division.**—For this division 11 sets of plans were approved by the Committee. Five of these were for new dwelling-houses, four of which were of bungalow or cottage type, while one was for a farmhouse. One of the cottages was of four apartments, the other houses being of four or more apartments. The other six plans approved of were for the following :—A Miners' Institute, a Miners' Clubhouse, the reconstruction of a byre, the restoration of shops after fire, and two plans of additions and alterations to existing buildings.

**Local Authority's Housing Schemes.**—At the end of the year 1924 the position of the various schemes were briefly as follows :—

**Northern Division — (1) Bonnybridge: Anderson Street Site.**—The 22 houses at this site have been occupied for the last four years.

**(2) Bonnybridge: Broomhill Site.**—The houses here, 14 in number, were completed and occupied during the year.

**(3) Larbert: Tennis Site.**—This scheme, providing for 50 houses, is now complete, the last four houses, each of five apartments, having been occupied since the end of the year.

**(4) Laurieston Site.**—The houses here, 22 in all, have now been occupied for fully three years.

**(5) Glen Village Site.**— This scheme consists of eight houses of three apartments each. The houses are in course of construction, and will be ready for occupation before the end of the present year (1925).

**(6) Airth Village Site.**—The position of this scheme is as stated with regard to the Glen Village scheme.

**Southern Division—(7) Avonbridge Site.**—The 12 houses completed here in 1922 are in occupation.



(8) **Brightons Site.** — A scheme of 42 houses is contemplated for this site, but at the end of the year none of the houses had been completed.

(9) **Redding Site.**—Twelve houses are to be built here, but although building had commenced, none of the houses were ready for occupation at the end of December.

**Provision of Water-closets, etc., under Section 41 of the Housing Act of 1919.**—In his Annual Report for the Northern Division of the District, Mr Macfarlane states that before taking the procedure laid down by the Act it has been his practice to communicate with the owners in the first instance. In this way four tenement properties in the Parish of Larbert were dealt with as follows :—

(1) Four additional water-closets provided and two existing conveniences thoroughly renovated.

(2) Three modern water-closets erected, two of which were additional, and the other in lieu of a defective convenience.

(3) One additional water-closet erected and the existing convenience thoroughly renovated.

(4) Two additional water-closets erected.

Primitive sanitary accommodation for a cottage in Larbert Parish was superseded by a water-closet, while a sanitary convenience and ashpit accommodation were provided for two dwelling-houses in Airth Parish.

In the Southern Division 21 formal notices under Section 41 were served, and by the end of the year the requirements of the notices were given effect to in four cases, leaving 17 still pending.

**Housing, Environment and Health Statistics of the Village of Carronshore.**—At the October Meeting of the Eastern District Committee attention was called to the housing conditions in the Carronshore District, and it was remitted to the Sanitary Inspector and myself to report. We accordingly prepared a very full report, a copy of which follows :—

“ We purpose dealing with the report under three headings, viz. :—(a) Housing, (b) Environment, and (c) Health Statistics.

“ The Committee will remember the Housing Survey so successfully carried out by the County Health Department

in the year 1919, the results of which were presented to each District Committee for its own area. Every house in the County was inspected and classified, so that each Committee had an exact idea of the housing conditions. The survey and report entailed much labour, but the time was well spent, as the report was the only real guide the Committee had when they came to consider housing schemes for their areas. The survey took into consideration the actual structure of the houses, and whether at reasonable cost they could where necessary, be so modified as to bring them into line with modern requirements. It may be stated shortly that the houses were classified under three categories:— (1) Houses meeting modern requirements; (2) houses that could at reasonable cost be made to meet modern requirements; and (3) houses that could not at reasonable cost be made to meet modern requirements.

“ The figures with percentages for the Eastern District were as follows :—

|                      | No. of Houses | Percentages |
|----------------------|---------------|-------------|
| Category I. ... ..   | 3940          | 56.7        |
| Category II. ... ..  | 2407          | 34.6        |
| Category III. ... .. | 602           | 8.7         |
|                      | <hr/>         | <hr/>       |
|                      | 6949          | 100.0       |

“ The figures with percentages for the Carronshore, Carron- and West Carron area were as follows :—

|                      | No. of Houses | Percentages |
|----------------------|---------------|-------------|
| Category I. ... ..   | 401           | 54.5        |
| Category II. ... ..  | 246           | 33.5        |
| Category III. ... .. | 88            | 12.0        |
|                      | <hr/>         | <hr/>       |
|                      | 735           | 100.0       |

“ The similarity of the percentages in the two Tables is quite marked, although it is to be noted that the Category III. percentage of the latter table is slightly higher than the corresponding percentage for the Eastern District as a whole. That is what might be expected, when the age of a good proportion of the property in the Carron and Carronshore area is remembered.

“ As most of the survey was carried through fully five years ago, it was considered expedient to visit and inspect some of the Category III. houses, so as to ascertain their present condition. Accordingly on the 21st inst., we visited

Carronshore and inspected thirty of these houses taken at random. The people had no intimation of our visit, so that the home conditions found represented a true daily average.

“ During our inspection of the 30 houses the thought was borne in upon us that the figures of the Housing Survey did not err on the side of leniency. The houses were among the oldest, and in a large proportion of those on the ground floor damp was seen coming up from the bottom. Others again were more or less below the level of the adjoining ground, and the windows were mostly small, although in some cases the apartments were well lighted and airy. Practically all the windows were made to open. About half of the houses visited had no water inside, and about the same number had no gas, paraffin lamps being used instead. The houses were all wind and water-tight.

“ We were much impressed by the general cleanliness, tidiness and thrift of the inmates. Considering the type of the houses, they were mostly well furnished and well kept. In two cases the miner had just returned from work, and was having a bath in front of the kitchen fire. In several cases we had evidence of sensible and economic cooking, one woman making a fine pot of broth, which she rightly considered one of the best meals for a family. One of the best of these houses was of three apartments. It was one stair up, quite dry and well furnished. The inmates consisted of the parents and 10 of a family. Of the 12 there were 7 workers. On pointing out to the mother that she should really have a larger and more commodious house, she said that the difficulty is to get such a place, although they could well afford it. She said, however, that when her family was young her present house was very suitable, and the rent was only £7. The rents varied up to about £10.

“ It may be said that three exceptions were found to the general rule of cleanliness and tidiness. In the first, the wife had been in bed for a month, and had only been able to be up for a short time on the day of our visit. A sister, who lived a considerable distance away, with a large family of her own, came as often as possible to give what assistance she could. The second case was that of an old man who was living alone. In the third case the husband had been out of work for almost a year, and the young wife seemed to have lost heart.

“ These people, however, taken as a whole, are of the self-respecting, self-reliant type that make the most of their circumstances.

“ We may now revert to the point where the report on the Housing Survey was considered by the District Committee. They were faced with an entirely new problem, because on all sides it had to be confessed that private enterprise from one cause, and another had at length failed to maintain a proper and continuous supply of working-class houses. The burden therefore of necessity fell jointly upon the shoulders of the Government and the various Local Health Authorities.

“ In no case was the task taken up more cheerfully or in a more comprehensive way than by the Eastern District Committee. A scheme was formulated which contemplated the building of no fewer than 600 houses. These were allocated to the different areas according to the best judgment of the Committee. Larbert Parish received its quota, but we are not aware that any member put in a special plea for Carronshore.

“ Unfortunately the Government were constrained to call a halt in the building programmes all over the country long before the completion of the schemes, the chief reason being that building costs soared to unprecedented and impossible heights.

“ The halt came at a time when only 102 of the 600 houses were completed or in process of completion. Since then, however, the Scottish Board of Health, as a result of representations by the District Committee, have approved the erection of a further 88 houses under the original scheme, making a total of 190 out of the proposed 600. In the circumstances, Larbert Parish may be considered fortunate to have 46 of these houses completed and occupied, and other 4 have been allocated to it. That is to say, of the 190 houses completed or to be completed, Larbert Parish has received fully one-fourth.

“ In considering the provision of new houses, it is to be remembered that few Authorities have been so fortunate as the Eastern District Committee in having so many houses provided by large industrial concerns under the 1923 subsidy schemes. Thus Carron Company erected 32 houses at Carrona Terrace, Carron, 96 houses at Letham, and are erecting 56 at Maddiston, all under the District Committee's subsidy scheme. In the same way Messrs Stein are erecting 24 houses at Allandale.

“ The houses at Carrona Terrace are within fairly easy reach of Carronshore, and might therefore be considered to relieve in some degree the housing strain there.

“ It must be acknowledged that in spite of all that has been done by the Government, the Local Authority, and the large industrial companies, the housing problem in the Eastern District, in common with the rest of the country, is still acute, and can only be solved by serious thought and deeds. No doubt other schemes will be promulgated, and then the Eastern District Committee will be in a position to give further consideration to the housing requirements of Carronshore together with those of other old villages equally needful.

“ We may now consider the second heading, viz., the question of environment. The environment of Carronshore, from the point of view of the County Council activities, is dependent upon the provision of the ordinary services by the District Committee of the County Council. Carronshore is an old village, and not so long ago its services were very primitive, but under the County Council it now enjoys (a) a gravitation water supply, (b) drainage, (c) scavenging, and (d) lighting. Recently the water supply was through the foresight of the County Council enormously augmented, with the result that now it has one of the best and fullest supplies in the whole country. The drainage system within the village works well, although the outfall works cannot be considered up-to-date. The scavenging is by a daily removal of refuse, and instructions regarding it have been conveyed to the people by handbills and individual notices as often as required. The lighting system is regarded as being quite effective.

“ Carronshore is fortunate in comparison with some areas where it has not been possible to provide certain of the services owing to the small rateable value and the statutory limit to the rating charges. The old dock has been filled in, and has therefore ceased to be an eyesore and a source of danger. The refuse coup is some distance from the village, and is well kept.

“ No report on the environment of Carronshore would be complete without taking into consideration the question of the pollution of the River Carron. There has of late been much talk about remedying the state of pollution of the Carron by straightening the course of the river below Carronshore. At the time of the proposed Falkirk Burgh Extension the question of the pollution of the Carron was considered in all its aspects by several very eminent engineers, but the idea of purifying the river by straightening its course does not appear to have suggested itself to any of them. Were



this plan adopted, it would involve an engineering problem of some magnitude, and the benefits, if any, from the point of view of the river's pollution would in our opinion be infinitesimal as compared with the cost. So long as there continues to be poured into the Carron the present huge volume of crude sewage and partially treated sewage, so long will the present unsatisfactory condition of the river remain adjacent to and below Carronshore.

“ That fact was recognised by the Eastern District Committee many years ago, as may be found from reports made from time to time both by Dr M'Vail and Dr Adam. It was equally recognised, however, that any independent action by the Eastern District Committee would prove futile so long as the neighbouring Burgh of Falkirk continued to discharge into the Carron the whole of her sewage in a crude state.

“ That consideration affords the reason for the continuous and earnest desire of the Eastern District Committee to enlist the very necessary co-operation of the Burgh of Falkirk in the effort to have the River Carron purified. During the County Medical Officer's tenure of office the efforts at co-operation have undergone several phases, but of late there has been evident on both sides a more favourable and practical view of the situation, and it may be said that at no former time has the outlook been so hopeful for agreement to be reached on the question of the formulation and institution of a comprehensive, up-to-date joint schemes of sewage disposal.

“ The foregoing considerations lead us naturally to the third heading, viz., the health of the area as judged by some of the principal health statistics.

“ The figures for Carron and Carronshore could not well be detached from those of Larbert Parish, and so for our present purpose it has been found expedient to compare the statistics of Larbert Parish with those of the Eastern District as a whole, as shown in the following Tables :—



" Death Rates in the Eastern District of Stirlingshire and in the Parish of Larbert during the years 1920 to 1923.

## EASTERN DISTRICT.

|   | 1920 | 1921 | 1922 | 1923 | Mean Annual Rate |
|---|------|------|------|------|------------------|
| Total Death Rate ... ..   | 11·8 | 12·0 | 11·1 | 10·3 | 11·3             |
| Infantile Mortality (Deaths under one year per 1000 births) ... | 78   | 76   | 89   | 73   | 81               |
| Death rates from  |      |      |      |      |                  |
| (a) Diarrhoea and Enteritis (under 2 years) ... ..              | ·17  | ·31  | ·09  | ·09  | ·16              |
| (b) Enteric Fever ... ..  | ...  | ...  | ·04  | ·06  | ·02              |
| (c) Tuberculosis  |      |      |      |      |                  |
| Pulmonary and ... ..  | ·54  | ·50  | ·40  | ·46  | { ·77            |
| Non-Pulmonary ... ..  | ·38  | ·24  | ·28  | ·32  |                  |

## LARBERT PARISH.

|   |      |      |      |     |       |
|---|------|------|------|-----|-------|
| Total Death Rate ... ..   | 10·3 | 11·1 | 10·4 | 6·3 | 9·5   |
| Infantile Mortality (Deaths under one year per 1000 births) ... | 53   | 70   | 65   | 63  | 63    |
| Death rates from  |      |      |      |     |       |
| (a) Diarrhoea and Enteritis (under 2 years) ... ..              | ·18  | ·36  | ·09  | ·09 | ·18   |
| (b) Enteric Fever ... ..  | ...  | ...  | *    | *   | ...   |
| (c) Tuberculosis  |      |      |      |     |       |
| Pulmonary and ... ..  | ·81  | ·45  | ·81  | ·18 | { ·78 |
| Non-Pulmonary ... ..  | ·18  | ·27  | ·27  | ·18 |       |

\*In each of these years one death from enteric fever took place in Larbert Asylum, which would give a rate of .09 and .09 respectively. The populations of the Asylum and Institution, however have been excluded from the calculation of all the parish rates.

" In the first place it is to be remarked that the health statistics of the Eastern District have always been very favourable as compared with those for Scotland as a whole. If, however, we look at the total death rates for the four years in the two Tables it will be seen that for each year the total death rate for Larbert Parish is definitely lower than that for the Eastern District as a whole, the difference in 1923 being 4 per 1000, which is very remarkable. It will also be noted that the mean annual death rate for the four years for the

whole Eastern District is 11.3 per 1000 of the population, while in Larbert Parish it is only 9.5, representing a saving of approximately two lives per 1000 of the population per annum.

“ A comparison of the infantile mortality figures as shown in the two Tables for the four years is also very favourable to Larbert Parish. Here again for each year the Larbert Parish rate is considerably lower than that for the Eastern District as a whole. A comparison of the mean annual infantile mortality rates for the four years is particularly notable. In the Eastern District it is 81 per 1000 births, which is considerably under the rate for Scotland as a whole—while in Larbert Parish it is only 63, representing a saving of 18 infants’ lives per 1000 births per annum.

“ The diarrhœal and tuberculosis rates are much the same in both tables, but it is to be noted that during the four years there were no deaths from enteric fever in Larbert Parish with the exception of two in connection with an epidemic of enteric, which occurred in Larbert Asylum, and which was in all probability due to a carrier within the Asylum. The epidemic was in no way associated with the general population of Larbert Parish. During these four years there has really only been one case of enteric fever among the population of Larbert Parish, and Carronshore itself has been entirely free from the disease.

“ These statistics are very much what might be expected by one with an intimate knowledge of the people of Larbert Parish. They are very reassuring, and indeed afford grounds for satisfaction regarding the conditions affecting health throughout Larbert Parish.”

#### WATER SUPPLY.

Since the completion of the Loch Coulter Scheme, the supply of water to the district has been more plentiful, and few, if any, complaints have been made.

In the Larbert area the pressure has been increased with good results, while at various places gravitation water has been introduced. These included the Village of Airth, a cottage in the Parish of Larbert, and a property in Falkirk Parish. This property being in an out-of-the-way position, the proprietrix was requested to provide three stand pipes at convenient points, which was done.

In the Southern Division also, the proprietor of a property at Old Polmont was called upon to lay water into eight houses. This has been done, and proper drainage provided.

## WATER ANALYSES.

During the year nine samples of water were sent to the Analysts for chemical examination, and in Table XX. are given the figures showing the Analysts' results.

Sample No. 1 was taken from a dip well at Easter Middlerig Farm, Muiravonside, and was found polluted with fresh sewage. The County water main is a very considerable distance from the farm, and in addition I understand that the water would only rise to a height of 15 feet below the farmhouse level. In the circumstances it was agreed to allow the proprietors to reconstruct the well and render it impervious to pollution, subject to the reservation that if the quality of the well water were not improved the proprietors would take steps to introduce gravitation water.

Nos. 2 and 8 were from a pump well at Wester Greenhill, Falkirk Parish, and each of the samples showed serious pollution. Negotiations are now in progress for a new supply.

Nos. 3 and 9, from pump at Milnquarter Farm, Bonnybridge, were found contaminated. Here also the question of a new supply is under consideration.

Nos. 4 and 5 were taken from the sources of supply to the tenants of houses at Candiehead Pit, Blackbraes. Sample No. 4 was found quite satisfactory, but No. 5 was stated by the Analysts to be "contaminated to a very small extent with animal matter." Its suitability for domestic purposes was therefore doubtful. As in No. 1, the question of cost is a stumbling-block. The advisability of pumping the water of the spring (No. 4) was under consideration, but as Candiehead is a very old property, the proprietors are very loth to spend money on it. In the meantime the water of the spring is being used.

Samples 6 and 7 were taken respectively from a pump well and from a spring 360 yards west of the steading at Shortrigghead Farm, in the Parish of Slamannan. No. 6 was found badly polluted, and the proprietors were asked to obtain another supply. No. 7 was from the suggested source of an alternative supply, and was found in every respect suitable for drinking, dairy, domestic and dietetic purposes generally. A windmill is being erected to pump the new supply to the farm.

Table XX.—EASTERN DISTRICT.—WATER ANALYSIS (IN GRAINS PER GALLON)—1924.

| No. | Date of Report | Where Taken   | Mineral Matter | Organic Matter | Total Solids | Nitrates | Free Ammonia | Albuminoid Ammonia | Total Ammonia | Temporary Hardness | Permanent Hardness | Total Hardness | Colour            | Degree of Sewage Contamination |
|-----|----------------|---|----------------|----------------|--------------|----------|--------------|--------------------|---------------|--------------------|--------------------|----------------|-------------------|--------------------------------|
| 1   | 3/5/24         | Dip Well at Easter Middlerig Farm, Muiravonside ... ..              | 6.28           | .50            | 6.78         | .19      | .112         | .021               | .133          | .42                | 3.95               | 4.37           | Faint Brown       | 1 to 35                        |
| 2   | 10/7/24        | Pump Well, Wester Greenhill, Falkirk                                | 14.05          | .36            | 14.41        | .84      | .001         | .011               | .012          | 2.87               | 2.21               | 11.12          | Very Faint Brown  | 1 to 30                        |
| 3   | 10/7/24        | Pump, Milnquarter Farm, Bonny-bridge ... ..                         | 12.90          | .25            | 13.15        | .69      | .003         | .012               | .015          | 8.25               | 8.39               | 10.60          | Almost Colourless | 1 to 37                        |
| 4   | 24/7/24        | Spring in field 400 yards south of Candiehead Pit, Muiravonside ... | 8.26           | .20            | 8.46         | .03      | None         | .004               | .004          | 1.52               | 4.41               | 5.93           | Almost Colourless | None                           |
| 5   | 24/7/24        | Dip Well in Garden, Candiehead Pit                                  | 42.10          | .25            | 42.35        | .21      | .005         | .006               | .011          | 22.75              | 12.70              | 35.45          | Almost Colourless | 1 to 140                       |
| 6   | 14/10/24       | Pump Well, Shortbrighead Farm, Slamannan ... ..                     | 20.15          | .30            | 20.45        | .59      | .002         | .008               | .010          | 8.05               | 7.47               | 15.52          | Almost Colourless | 1 to 45                        |
| 7   | 7/11/24        | Spring, 360 yards west of Shortbrighead Farm, Slamannan .. ..       | 11.63          | .40            | 12.03        | None     | .001         | .005               | .006          | 5.49               | 3.02               | 8.51           | Faint Brown       | None                           |
| 8   | 24/12/24       | Pump Well, Wester Greenhill, Falkirk                                | 16.83          | .50            | 17.33        | 3.08     | .004         | .010               | .014          | 6.09               | 4.13               | 10.22          | Almost Colourless | 1 to 8                         |
| 9   | 24/12/24       | Well at Milnquarter Farm, Bonny bridge ... ..                       | 14.97          | .40            | 15.37        | 2.17     | .003         | .009               | .012          | 1.18               | 7.02               | 8.20           | Almost Colourless | 1 to 11                        |

## DRAINAGE.

**Larbert Special District.**—Mr Macfarlane, the Sanitary Inspector, reported that part of the sewer in front of Carron Company's offices was found to be improperly laid, and was quite solid with road detritus. The sewer was accordingly relaid. The joint outfall sewer for Camelon, Larbert, etc., was in a silted condition, and had to be cleaned out at considerable expense, a modest estimate of the deposit extracted from the duplicate pipes being 62 tons. The sewer from above West Carron to the commencement of the joint outfall was also found to be silted up, and had to be cleaned.

**Lime Road Special District and Laurieston Special District.**—In these districts also a good deal of work was done under the supervision of the Sanitary Inspector in the way of cleaning silted pipes.

In the Southern Division Mr Gough reports that generally speaking the system of sewers and sewage disposal works have efficiently met all the demands made of them. In many of the Special Districts the routine work included the chaining of sewers, cleaning out of manholes, settling tanks, etc.

## SCAVENGING.

Mr Macfarlane reports that in order to eliminate the objectionable practice of laying down refuse on back areas, etc., in the Larbert District, circulars were served on occupiers and warning notices were posted up, with beneficial effect. On the whole, the scavenging of the District was attended to in a systematic fashion. Where privy middens have been converted into water-closets, the question of scavenging naturally becomes a great deal simpler.

Mr Gough states that scavenging has been carried out in a satisfactory manner, and gave no cause for complaint. The need for a proper system of scavenging for the villages of Avonbridge, Maddiston, Shieldhill and Slamannan is as great as ever, but as Mr Gough states, until such time as these villages are provided with proper drainage facilities and the privy middens abolished, a good scavenging system can hardly be looked for.

## SANITARY CONDITIONS IN MINING AREAS.

In accordance with a letter from the Board of Health suggesting that inquiry should be made as to the conditions obtaining in mining areas with regard to the provision of



proper roads and footpaths, better sanitary conveniences and more satisfactory arrangements for the removal of refuse, it was remitted to me to submit reports. A brief resumé of the reports submitted is appended :—

**Polmont.**—With exception of a few dry closets, water-closets are in use. The dry closets are being replaced by water-closets. Refuse is collected on alternate days. This is a Special Drainage District.

**Redding and Reddingmuirhead.** — Water-closets provided for all properties, with five exceptions, and water-closets are being gradually substituted for the latter. Refuse is removed every other day. Being a Special Drainage District there is excellent sewerage.

**Brightons, Craigs and Rumford.**—Five private roads here are without footpaths, and are badly formed and uneven. These require drastic repairs. Brightons and Craigs have water-closets. The Rumford area has partly water-closets and partly pail privies. The pail privies are presently being dealt with. Refuse is collected on alternate days with the exception of a few houses. The whole is a Special Drainage and Scavenging District, with good drainage.

**Maddiston.**—Three private roads are in bad condition, and should be re-made with proper footpaths. The conveniences consist of dry closets of the privy-midden type, which are generally kept clean and in a good state of repair. So far there is no drainage scheme for the village. Refuse is deposited in ashpits, which are attended to by property owners. There is no doubt that it would be a great improvement if the area could be formed into Special Drainage and Scavenging Districts, were that found possible.

**Shieldhill.**—The road leading to the North Row and the road in front of the Row become soft in wet weather, and should be re-made. Dry closets are in use here, and these, with a few exceptions, are well kept. Refuse is deposited in ashpits, which are emptied by the proprietors when necessary. Here also, if it were possible, the formation of Special Drainage and Scavenging Districts would be a great boon.

**Redford.**—Dry closets of the privy-midden type are in use. Generally these are kept clean and tidy. Ashpits are cleaned by the owners when required. This is quite a small area.

**Avonbridge.**—The conveniences are dry-closets and also water-closets. In a few properties the dry-closets receive



insufficient attention. Owners make their own arrangements for emptying ashpits. This is not a drainage district, and properties with water-closets discharge sewage into septic tanks.

**Wallacestone and Standrigg.** — Some of the roads and footpaths in the rows are looked after by the Colliery Company. These are made up of red ash, and are apt to be soft after frost. Dry closets of the privy-midden type are used. Generally they are in a fair condition, but a few are apt to be in a filthy condition. Cleaning of ashpits is arranged for by the owners. If it were feasible it would be an improvement to include Wallacestone in the Polmont Special Scavenging District. Drainage is into an extension of the Polmont sewer. Standrigg has no drainage, so that waste water finds its way by surface channels into Gardrum Burn.

**Standburn.**—The roads and footpaths, which are of red ash, would require to be re-made. Conveniences consist of dry-closets of the privy-midden type. These are defective, and occasionally filthy. More are required. Contents of ashpits are removed periodically by owners. There is no system of sewers in the village. Waste water from wash-houses discharges by a drain into a large cesspool. Other waste water is discharged into sinks in the footpaths and finds its way by means of surface channels either to the cesspool or into the Bowhouse Burn. The cesspool discharges into the burn also.

**Limerigg.**—Dry-closets of the privy-midden type are in use here. Some of these are badly kept, and many require repair. More conveniences are required. Removal of the contents of ashpits is arranged by owners. This is a very small village with no sewers, waste water being discharged into surface channels and roadside ditches.

**Slamannan.**—Newmarket Street, which is a private road, is in bad condition, and requires re-making. Dry-closets are in use, some of which are in need of repair. Removal of ashpit refuse is arranged for by owners. There is no system of sewers here. As in the case of some of the other villages mentioned, the formation of Special Drainage and Scavenging Districts, if the cost were not prohibitive, would be a vast improvement.

With regard to the conditions of the roads and footpaths, I should say that, where not otherwise indicated in the foregoing summary, they are wholly maintained by the Local Authority.

## NUISANCES.

In the northern area 39 complaints were received, 22 of which were written, the others being verbal. In all, the number of intimations issued under Section 19 of the Act was 194, and the Sanitary Inspector, Mr Macfarlane, writes in his report that "on the whole it must be admitted that the requests made to owners for repairs, even where these were of an extensive nature, have met with a fairly willing response."

In the Southern division 385 formal intimations were served in addition to a large number of verbal intimations. The total number of nuisances dealt with by Mr Gough was 467, of which only seven remained unabated at the close of the year.

The principal nuisances were:—Accumulations of ashpit manure, defective ashpits, want of proper ashpit accommodation, defective and dilapidated privies, want of water-closet or privy accommodation, and so on.

## SLAUGHTER-HOUSES AND MEAT INSPECTION.

The number of private slaughter-houses in the district is 12, and the number of inspections made by the Sanitary Inspectors was 273, and 7 written notices were issued with regard to contraventions of the Bye-laws, i.e., lack of cleanliness, accumulations of bones, offal and manure. As a rule, however, the slaughter-houses were kept in a satisfactory manner. The whole question of the inspection of slaughter-houses is presently under the consideration of the Local Authority.

In all 379 inspections were made for the discovery of unsound food, but, apart from meat condemned by the Veterinary Surgeon, only a small quantity of mincemeat was found unfit for food and was destroyed.

## DAIRIES, COWSHEDS AND MILKSHOPS.

At the end of the year there were on the register 177 dairies, and the number of inspections carried out was 271. Six contraventions of the regulations were dealt with, these consisting of overdue lime-washing, inadequate cleansing of byres, and insufficient grooming of the herd.

The dairy premises at Cuttyfield Farm, referred to in my last Annual Report, have now been thoroughly reconstructed.

Attention was again called by Mr Gough to the practice at a number of dairies of storing various articles not required for dairy purposes in the milk-houses. Such articles were removed in each case.

No applications were received under the Milk (Special Designations) Order (Scotland), 1923, for permission to sell graded milk.

No samples were taken under the Condensed Milk and Dried Milk Regulations, 1923.

### FACTORY AND WORKSHOP ACT.

At the end of the year there were within the District 9 factories, 394 workshops, and 2 workplaces, and in all 405 visits of inspection were made. Forty-three defects were found, consisting of want of cleanliness, 26; want of ventilation, 1; unsuitable, defective, or want of sanitary accommodation, 4; and other nuisances, 12. With the exception of 3, all the defects had been remedied at the close of the year. Twenty-three notices were served.

One notice was received from H.M. Inspector relating to the wall of a blacksmith's workshop which required white-washing. The matter was duly attended to.

### INFECTIOUS DISEASE.

Including tuberculosis and acute primary and influenzal pneumonia, the total number of notified cases of infectious disease in the Eastern District was 398. This number is just about the average for the previous 10 years — 396 — although the numbers have varied very much from year to year, the greatest number being 854 in 1915, and the lowest 179 in 1918. The figures for 1924 are given in Tables XXI. and XXIV.

**Scarlet Fever.**—The Parish of Muiravonside especially suffered from a somewhat prolonged epidemic, the number of cases notified in this parish being 79 out of a total of 182 for the whole District. In Larbert Parish 31 cases were notified; in Falkirk Parish, 25; in Slamannan Parish, 25; in Grangemouth Parish, 17; and in the Parish of Airth, 5. Of the 182 cases, 115 were of school age, 48 were below school age, while only 19 were beyond school age. All but 14 of the cases were treated in hospital. The number of fatal cases was 3, equal to a death rate of 0.07 per 1000 of population, or a fatality rate of 1.6 per cent. of the cases notified.

**Diphtheria.** — Eighty-three cases of diphtheria were notified, as compared with 60 in 1923. Sixty-four of the notifications were of children at or under school age. The greatest prevalence of this disease was also in the Parish of Muiravonside, where more than half of the cases occurred. Of the 83 cases 81 were removed to hospital. Three deaths occurred.

**Enteric Fever.** — Of the 13 notified cases 8 were in the Parish of Falkirk and 5 in Larbert Parish. Ten of the cases were treated in hospital, and all recovered.

**Tuberculosis.**—The number of notifications received was :—Pulmonary tuberculosis, 42; and non-pulmonary tuberculosis, 26. The number of surviving patients on the registers as at 31st December was :—Pulmonary tuberculosis, 184; non-pulmonary, 225; and of pulmonary and non-pulmonary cases combined, 5; making a total of 414 cases. As the County Tuberculosis Committee attends to treatment of tuberculosis, further details are given in the County Report.

**Table XXI.—EASTERN DISTRICT.**

**RETURN OF CASES OF INFECTIOUS DISEASE NOTIFIED, &c.  
DURING THE YEAR ENDING 31ST DECEMBER, 1924.**

| DISEASE  | NUMBER OF CASES COMING TO THE KNOWLEDGE<br>OF THE MEDICAL OFFICER OF HEALTH |              |               |                |                 |                 |                 |                |                              |                                  |
|--|---|--------------|---------------|----------------|-----------------|-----------------|-----------------|----------------|------------------------------|----------------------------------|
|  | At all Ages   | At Age—Years |               |                |                 |                 |                 |                | Cases removed to<br>Hospital | Cases not removed to<br>Hospital |
|  |   | Under 1 Year | 1 and under 5 | 5 and under 15 | 15 and under 25 | 25 and under 45 | 45 and under 65 | 65 and upwards |                              |                                  |
| A.—Diseases specified in the Infectious Disease (Notification) Act, 1889.  |   |              |               |                |                 |                 |                 |                |                              |                                  |
| Typhoid or Enteric Fever   | 13  | ...          | ...           | 3              | 3               | 2               | 4               | 1              | 10                           | 3                                |
| Typhus Fever ... ..  | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| Smallpox ... ..  | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| Scarlet Fever or Scarlatina  | 182   | ...          | 48            | 115            | 13              | 5               | 1               | ...            | 163                          | 14                               |
| Diphtheria and Membranous<br>Croup ... ..  | 83  | ..           | 23            | 41             | 13              | 5               | 1               | ...            | 81                           | 2                                |
| Erysipelas ... ..  | 11  | ...          | ...           | 1              | 1               | 4               | 5               | ...            | 3                            | 8                                |
| Interperal Fever ... ..  | 3   | ...          | ...           | ...            | 1               | 2               | ...             | ...            | 3                            | 0                                |
| Cholera ... ..   | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| Relapsing Fever ... ..   | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| Continued Fever ... ..   | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| B.—Diseases Notifiable in terms of Regulations made under Section 78<br>of the Public Health (Scotland) Act, 1897. |   |              |               |                |                 |                 |                 |                |                              |                                  |
| Ophthalmia Neonatorum  | 4   | 4            | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | 4                                |
| Infective Jaundice ... ..  | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| Malaria ... ..   | 1   | ...          | ...           | ...            | ...             | 1               | ...             | ...            | ...                          | 1                                |
| Dysentery ... ..   | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| French Fever ... ..  | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...                              |
| Acute Primary Pneumonia  | 20  | ...          | 2             | 7              | 3               | 4               | 1               | 3              | 4                            | 16                               |
| Acute Influenzal Pneumonia   | 12  | 2            | 1             | 2              | 1               | 2               | 1               | 3              | ...                          | 12                               |
| Pulmonary Tuberculosis...  | 42  | ...          | 2             | 10             | 8               | 17              | 5               | ...            | 31                           | 11                               |
| Non-Pulmonary Tuber-<br>culosis... ..  | 26  | ...          | 5             | 13             | 3               | 5               | ...             | ...            | 8                            | 18                               |
| Total of A and B...  | 397   | 6            | 81            | 192            | 46              | 47              | 18              | 7              | 308                          | 89                               |

Cases notified in a previous  
year and removed to Hospital,  
for the first time during 1924.

4

1

5

Cases notified in a previous  
year and removed to Hospital,  
for the first time during 1924.

**C.—Diseases to which the Provisions of the Infectious Disease (Notification)  
Act have been extended by the Local Authority.**

|                         |   |     |    |   |     |     |    |    |     |   |
|-------------------------|---|-----|----|---|-----|-----|----|----|-----|---|
| Cerebro-Spinal Fever .. | 1 | ... | .. | 1 | ... | ... | .. | .. | ... | 1 |
|-------------------------|---|-----|----|---|-----|-----|----|----|-----|---|

*State Name of Hospital or Hospitals in which Cases were treated.*

Camelon Fever Hospital, Falkirk. Ochil Hills Sanatorium, Milnathort,

*Number of Persons resident in the District as at 31st December, 1924, who were  
known to be suffering from Tuberculosis. (Persons in Sanatoria, &c., should be  
included in the figures for the area in which they have their home residence.)*

|  |     |     |     |     |     |
|--|-----|-----|-----|-----|-----|
| Pulmonary Tuberculosis only,...                | ... | ... | ... | ... | 184 |
| Non-Pulmonary Tuberculosis only, ...           | ... | ... | ... | ... | 225 |
| Both Pulmonary and Non-Pulmonary Tuberculosis, | ... | ... | ... | ... | 5   |



**Table XXII.—EASTERN DISTRICT—CASES OF INFECTIOUS DISEASE COMING TO THE KNOWLEDGE OF THE  
MEDICAL OFFICER OF HEALTH DURING THE YEAR 1924.**

| Parish              | Smallpox | Diphtheria and<br>Membranous Group | Erysipelas | Scarlet Fever | Typhus Fever | Enteric Fever | Continued Fever | Puerperal Fever | Cerebro-Spinal<br>Fever | Ophthalmia<br>Neonatorum | Chickenpox | Malaria | Dysentery | Trench Fever | Acute Primary<br>Pneumonia | Acute Influenzal<br>Pneumonia | Tuberculosis |               | Total |
|---------------------|----------|------------------------------------|------------|---------------|--------------|---------------|-----------------|-----------------|-------------------------|--------------------------|------------|---------|-----------|--------------|----------------------------|-------------------------------|--------------|---------------|-------|
|                     |          |                                    |            |               |              |               |                 |                 |                         |                          |            |         |           |              |                            |                               | Pulmonary    | Non Pulmonary |       |
| Larbert             | ...      | 15                                 | 6          | 31            | ...          | 5             | ...             | ...             | 1                       | 2                        | ...        | ...     | ...       | ...          | 1                          | 1                             | 12           | 11            | 85    |
| Falkirk             | ...      | 5                                  | 3          | 25            | ...          | 8             | ...             | 2               | ...                     | 1                        | ...        | ...     | ...       | ...          | 17                         | 6                             | 7            | 11            | 85    |
| Grangemouth         | ...      | 7                                  | 1          | 17            | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | 1                          | ...                           | 10           | 3             | 39    |
| Airth               | ...      | ...                                | ...        | 5             | ...          | ...           | ...             | 1               | ...                     | ...                      | ...        | ...     | ...       | ...          | ...                        | ...                           | ...          | ...           | 6     |
| Muiravonside        | ...      | 44                                 | 1          | 79            | ...          | ...           | ...             | ...             | ...                     | 1                        | ...        | 1       | ...       | ...          | ...                        | ...                           | 5            | 1             | 131   |
| Slamannan           | ...      | 12                                 | ...        | 25            | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | 1       | ...       | ...          | 1                          | 5                             | 8            | ...           | 52    |
| Totals              | ...      | 83                                 | 11         | 182           | ...          | 13            | ...             | 3               | 1                       | 4                        | ...        | 1       | ...       | ..           | 20                         | 12                            | 42           | 26            | 398   |
| Removed to Hospital | ...      | 81                                 | 3          | 168           | ...          | 10            | ...             | 3               | ...                     | ...                      | ...        | ...     | ...       | ...          | 4                          | ...                           | 31           | 8             | 308   |



| Ages in Years<br>Disease | 0-5       |           | 5-10      |           | 10-20     |           | 20-30    |           | 30-40    |          | 40-50    |          | Over 50  |            | Totals     |            | Total<br>Both |  |
|--------------------------|-----------|-----------|-----------|-----------|-----------|-----------|----------|-----------|----------|----------|----------|----------|----------|------------|------------|------------|---------------|--|
|                          | M         | F         | M         | F         | M         | F         | M        | F         | M        | F        | M        | F        | M        | F          | M          | F          |               |  |
|                          |           |           |           |           |           |           |          |           |          |          |          |          |          |            |            |            |               |  |
| <i>Scarlat Fever—</i>    |           |           |           |           |           |           |          |           |          |          |          |          |          |            |            |            |               |  |
| Recovered                | 15        | 23        | 23        | 39        | 9         | 25        | 2        | ...       | ...      | ...      | ...      | ...      | ...      | ...        | 47         | 89         | 136           |  |
| Died                     | ...       | ...       | ...       | ...       | ...       | 1         | ...      | ...       | ...      | ...      | ...      | ...      | ...      | ...        | ...        | 1          | 1             |  |
| Remaining                | ...       | ...       | ...       | ...       | ...       | 4         | ...      | 2         | ...      | ...      | ...      | ...      | ...      | ...        | 16         | 17         | 33            |  |
| <i>Enteric Fever—</i>    |           |           |           |           |           |           |          |           |          |          |          |          |          |            |            |            |               |  |
| Recovered                | ...       | ...       | 2         | ...       | 2         | 1         | 2        | ...       | ...      | ...      | 1        | 1        | ...      | ...        | 5          | 4          | 9             |  |
| <i>Diphtheria—</i>       |           |           |           |           |           |           |          |           |          |          |          |          |          |            |            |            |               |  |
| Recovered                | 11        | 12        | 12        | 6         | 6         | 11        | 1        | 5         | ...      | 2        | ...      | ...      | 1        | ...        | 31         | 36         | 67            |  |
| Died                     | 1         | ...       | ...       | 1         | ...       | ...       | ...      | ...       | ...      | ...      | ...      | ...      | ...      | ...        | 1          | 1          | 2             |  |
| Remaining                | 2         | 1         | ...       | 3         | ...       | 1         | ...      | ...       | 1        | 1        | ...      | ...      | ...      | ...        | 3          | 6          | 9             |  |
| <i>Erysipelas—</i>       |           |           |           |           |           |           |          |           |          |          |          |          |          |            |            |            |               |  |
| Recovered                | ...       | ...       | ...       | ...       | ...       | ...       | ...      | ...       | ...      | 1        | ...      | 1        | ...      | ...        | 1          | 1          | 2             |  |
| Died                     | ...       | ...       | ...       | ...       | ...       | ...       | ...      | ...       | ...      | ...      | 1        | ...      | ...      | ...        | 1          | ...        | 1             |  |
| <i>Puerperal Fever—</i>  |           |           |           |           |           |           |          |           |          |          |          |          |          |            |            |            |               |  |
| Recovered                | ...       | ...       | ...       | ...       | ...       | 1         | ...      | 1         | ...      | ...      | ...      | ...      | ...      | ...        | ...        | 2          | 2             |  |
| Died                     | ...       | ...       | ...       | ...       | ...       | ...       | ...      | 1         | ...      | ...      | ...      | ...      | ...      | ...        | ...        | 1          | 1             |  |
| <i>Encephalitis—</i>     |           |           |           |           |           |           |          |           |          |          |          |          |          |            |            |            |               |  |
| Recovered                | ...       | ...       | 1         | ...       | 2         | ...       | ...      | ...       | ...      | ...      | 1        | ...      | ...      | ...        | 3          | 1          | 4             |  |
| <i>Pneumonia—</i>        |           |           |           |           |           |           |          |           |          |          |          |          |          |            |            |            |               |  |
| Recovered                | 1         | ...       | 3         | ...       | ...       | 2         | ...      | ...       | ...      | ...      | ...      | ...      | 1        | ...        | 5          | 2          | 7             |  |
| Died                     | ...       | 1         | 1         | ...       | ...       | ...       | ...      | ...       | ...      | ...      | ...      | ...      | ...      | ...        | 1          | 1          | 2             |  |
| <i>Observation—</i>      |           |           |           |           |           |           |          |           |          |          |          |          |          |            |            |            |               |  |
| Recovered                | ...       | ...       | ...       | ...       | ...       | ...       | ...      | ...       | ...      | ...      | ...      | ...      | 1        | ...        | 1          | ...        | 1             |  |
| <i>Croup—</i>            |           |           |           |           |           |           |          |           |          |          |          |          |          |            |            |            |               |  |
| Recovered                | 1         | 1         | ...       | ...       | ...       | ...       | ...      | ...       | ...      | ...      | ...      | ...      | ...      | ...        | 1          | 1          | 2             |  |
| Died                     | 1         | ...       | ...       | ...       | ...       | ...       | ...      | ...       | ...      | ...      | ...      | ...      | ...      | ...        | 1          | ...        | 1             |  |
| <i>Phthisis—</i>         |           |           |           |           |           |           |          |           |          |          |          |          |          |            |            |            |               |  |
| Recovered                | 2         | 1         | 3         | 1         | 3         | 3         | 1        | 1         | ...      | 2        | 1        | 1        | ...      | ...        | 11         | 8          | 19            |  |
| Died                     | ...       | ...       | ...       | ...       | ...       | ...       | ...      | 1         | ...      | ...      | ...      | ...      | ...      | ...        | ...        | 1          | 1             |  |
| Remaining                | 1         | ...       | ...       | 1         | ...       | 2         | ...      | ...       | ...      | 1        | ...      | ...      | ...      | ...        | 2          | 3          | 5             |  |
| <b>Totals</b>            | <b>34</b> | <b>46</b> | <b>51</b> | <b>55</b> | <b>23</b> | <b>51</b> | <b>2</b> | <b>15</b> | <b>1</b> | <b>7</b> | <b>4</b> | <b>3</b> | <b>3</b> | <b>...</b> | <b>130</b> | <b>175</b> | <b>305</b>    |  |

## CAMELON HOSPITAL.

The number of cases admitted to Camelon Hospital during 1924 was 305, being 138 more than in the previous year. At the end of 1923 there were in the wards 17 cases, and at the end of 1924 there were 49 cases, so that the number of cases treated to a termination was 273.

The total length of residence of the 305 cases was 10,863 days. Up to the end of the year the total length of residence of the 49 cases still in the wards was 2162 days, and up to the end of 1923 the total length of residence of the 17 cases then remaining was 186 days. Adding the 10,863 to the 1869, and deducting the 2162, gives a total of 10,570 days, which gives a daily average of 38,196 patients in the wards.

The number of scarlet fever cases treated to a termination was 150. The total length of residence was 6529 days, averaging 43.79 days. There were two deaths.

The number of enteric fever cases treated to a termination was 9. The total length of residence was 327 days, averaging 35.2 days. All recovered.

There were 70 cases of diphtheria treated to a termination. The length of residence of these was 1226 days, averaging 17.36 days. Two cases died.

There were three cases of croup. The length of residence was 41 days, averaging 13.2 days. One case died.

Three cases of erysipelas were treated to a termination. The total length of residence was 50 days, giving an average of 16.2 days. One died.

Eight cases of pneumonia were treated. The length of residence was 184 days, giving an average of 23 days. Three cases died.

One observation case was treated. The length of residence was 34 days.

There were three cases of puerperal fever treated to a termination. The total length of residence was 87 days, averaging 29 days. One case died.

Four cases of encephalitis were treated to a termination. The total length of residence was 244 days, averaging 61 days. There were no deaths.

There were 21 cases of phthisis treated. The total length of residence was 2018 days, averaging 96.2 days. Two cases died.

**Table XXIV.—EASTERN DISTRICT. BIRTHS, MARRIAGES, AND DEATHS  
DURING THE YEAR 1924.**

Principal Rates per 1000 of Estimated Population.

|                                       | Numbers Registered in District | Transfers |     | Corrected Number. |               |
|---------------------------------------|--------------------------------|-----------|-----|-------------------|---------------|
|                                       |                                | Out       | In  | Both Sexes        | Males Females |
| Total Births (including Illegitimate) | 923                            | 19        | 51  | 955               | 507 448       |
| Illegitimate Births                   | 45                             | 3         | 15  | 57                | 29 28         |
| Marriages                             | 197                            | ...       | ... | ...               | ...           |
| Deaths                                | 530                            | 109       | 77  | 498               | 264 234       |

|   | Uncorrected | Corrected for Transfers. | Corrected for Transfers and adjusted for Age and Sex Distribution |
|---|-------------|--------------------------|---|
|   |             |                          |   |
| Birth-rate ... ..   | 23.1        | 23.9                     | ...   |
| Illegitimate Birth-rate per 100 Total Births ... ..               | ...         | ...                      | ...   |
| Marriage rate ... ..  | 4.9         | 6.0                      | ...   |
| Death-rate—All Causes ... ..                                      | 13.2        | 12.4                     | 13.7  |
| Do. —All Tuberculosis ... ..                                      | ...         | 0.82                     | ...   |
| Do. —Tuberculosis of Respiratory System ... ..                    | ...         | 0.65                     | ...   |
| Do. —Principal Epidemic Diseases (asterisked below)               | ...         | 0.65                     | ...   |
| Infantile Mortality Rate (Deaths under one Year per 1000 Births), | ...         | 69                       | ...   |

CAUSES OF DEATH (corrected for Transfers).

| Causes of Death.   | All Ages.      |        |          | Age. |     |     |     |     |     |     |     |     |     |     |                |
|--|----------------|--------|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|
|  | Both<br>Sexes. | Males. | Females. | —1   | 1 - | 5—  | 10— | 15— | 25— | 35— | 45— | 55— | 65— | 75— | 85 and<br>over |
|  |                |        |          |      |     |     |     |     |     |     |     |     |     |     |                |
| *Enteric Fever   | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Typhus Fever   | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Smallpox   | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| *Measles   | 6              | 3      | 3        | 1    | 5   | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| *Scarlet Fever   | 3              | 2      | 1        | 5    | 2   | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| *Whooping-Cough  | 6              | 1      | 5        | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| *Diphtheria  | 3              | 2      | 1        | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Influenza  | 26             | 15     | 11       | 3    | 1   | 2   | ... | 1   | 2   | 1   | 1   | 2   | 6   | 6   | 1              |
| Encephalitis Lethargica  | 1              | ...    | 1        | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Cerebro spinal Meningitis                                      | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Other Epidemic Diseases  | 2              | 2      | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Tuberculosis of Respiratory System                             | 26             | 19     | 7        | ...  | ... | ... | ... | 5   | 8   | 4   | 6   | 1   | 2   | ... | ...            |
| Tuberculous Meningitis   | 2              | 2      | ...      | ...  | ... | ... | 1   | ... | ... | ... | ... | ... | ... | ... | ...            |
| Tuberculosis of Intestines and Peritoneum                      | 3              | 2      | 1        | ...  | 1   | ... | 1   | 1   | ... | ... | ... | ... | ... | ... | ...            |
| Other Tuberculous Disease                                      | 2              | 2      | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Malignant Tumours  | 46             | 14     | 32       | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Rheumatic Fever  | 2              | 2      | 2        | ...  | ... | ... | 1   | ... | ... | ... | ... | ... | ... | ... | ...            |
| Meningitis (not Cer. Spin. or Tuberc )                         | 8              | 6      | 2        | 3    | 2   | 1   | 2   | ... | ... | ... | ... | ... | ... | ... | ...            |
| Apoplexy   | 35             | 16     | 19       | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Heart Disease  | 63             | 30     | 33       | ...  | ... | ... | ... | 1   | ... | ... | ... | ... | ... | ... | ...            |
| Diseases of Arteries   | 4              | 4      | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Bronchitis   | 26             | 13     | 13       | 6    | 1   | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Pneumonia (all forms)  | 40             | 18     | 22       | 5    | 12  | 2   | 2   | 1   | 1   | 3   | 2   | 1   | 11  | 2   | 2              |
| Other Diseases of Respiratory System                           | 6              | 6      | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| *Diarrhea and Enteritis (under 2 years)                        | 8              | 5      | 3        | 7    | 1   | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Appendicitis   | 5              | 3      | 2        | ...  | ... | ... | 3   | ... | 1   | ... | ... | ... | ... | ... | ...            |
| All Diseases of Liver (not Malignant)                          | 3              | ...    | 3        | ...  | ... | ... | 1   | ... | ... | ... | ... | ... | ... | ... | ...            |
| Nephritis (Acute and Chronic)                                  | 6              | 1      | 5        | ...  | ... | ... | 1   | 1   | 2   | ... | 1   | 1   | ... | 1   | ...            |
| Puerperal Sepsis   | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Other Diseases and Accidents of Preg-<br>nancy and Parturition | 3              | ...    | 3        | ...  | ... | ... | ... | 1   | 1   | 1   | ... | ... | ... | ... | ...            |
| Dis. of Early Infancy and Malformations                        | 29             | 18     | 11       | 29   | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Suicide  | 2              | ...    | 2        | ...  | ... | ... | ... | 1   | ... | ... | ... | 1   | ... | ... | ...            |
| Other Violent Deaths   | 18             | 14     | 4        | ...  | 2   | ... | ... | 6   | 4   | ... | 1   | 3   | 1   | ... | ...            |
| Other Defined Diseases   | 106            | 60     | 46       | 7    | 4   | 6   | 1   | 2   | 1   | 9   | 10  | 13  | 22  | 27  | 4              |
| Causes Ill defined or Unknown                                  | 8              | 4      | 4        | ...  | 2   | ... | 1   | ... | 1   | ... | 1   | 1   | 2   | ... | ...            |
| All Causes   | 498            | 264    | 234      | 66   | 37  | 15  | 13  | 20  | 22  | 27  | 42  | 53  | 109 | 81  | 13             |



## VITAL STATISTICS.

Table XXIV. gives the figures for population — births, marriages and deaths. The population, as estimated by the Registrar-General, is said to be 40,042, although in all probability the actual number is considerably greater.

The number of births during the year, after correction for transfers, was 955, and this gives a birth rate of 23.9 per 1000 of the estimated population. The birth rates for the past three years have been practically identical.

After adjustment for transfers, the number of deaths in the District was 498, which is equal to a death rate of 12.4 per 1000, and which is just fractionally greater than the average death rate for the past seven years.

The death rate from tuberculosis of the respiratory tract was 0.65, and the rate for all other forms of this disease was 0.17—giving a total rate for all forms of tuberculosis of 0.82.

From the Principal Epidemic Diseases, the death rate was 0.65 per 1000. Diarrhœa and enteritis caused 8 deaths; measles and whooping-cough, 6 each; while scarlet fever and diphtheria caused 3 deaths each. No death was due to enteric fever.

The infantile mortality rate, that is, the number of deaths under one year of age per 1000 births, was 69.

## WESTERN DISTRICT.

## HOUSING.

**Building Plans.**—The number of plans submitted to and approved by the District Committee was 20—a decrease of 6 as compared with 1923. Of these 11 were for new dwelling-houses, one was for a farmhouse, one for a refreshment hut, one for a bothy, one for a workshop, and one for an office, while three were for additions to existing buildings. Of the 11 new dwellings, one was of three apartments, 3 were of four apartments, 4 were of five apartments, and 3 were of six or more apartments. The farmhouse referred to was of six apartments, and the bothy was a single apartment.

**Housing of Seasonal Workers.**—Mr Gough reports that potato diggers were engaged on 27 farms during the season, and states that steady progress is being made in the improvement of the accommodation provided for the workers. At one farm only was the accommodation unsuitable. Intimation to that effect was given to the farmer, and suitable accommodation was found on a neighbouring farm.

The tendency to work from bothies or farms, with proper accommodation, is increasing, as the following figures will show :—

|  |     |
|--|-----|
| Number of farms where diggers were employed .....    | 27  |
| Number of farms where diggers were accommodated..... | 14  |
| Number of farms worked from one bothy .....          | 10  |
| Number of farm steadings used as centres .....       | 3   |
| Number of inspections .....                          | 41  |
| Number of workers (87 women, 80 men) .....           | 167 |
| average acreage .....                                | 7.5 |

**District Committee's Housing Scheme.** — The additional eight houses contemplated for the Lennoxtown site were commenced during 1924, but had not been completed by the end of the year. These will make the total number of houses built under the Local Authority's Scheme 28 in all, of which 10 are at Milton of Campsie and the others at Lennoxtown.

**Work under Section 41 of the Housing and Town Planning (Scot.) Act, 1919.**—Under this Section, twenty-six water-closets and privies were provided.

**Proceedings taken as regards Inspection, Improvement and Closure of Dwelling-Houses.** — Under Section 17 of the Housing, Etc., Act of 1909, three houses were inspected, and were duly represented to the Local Authority as being unfit.



Closing orders were made in each case, but two of the houses were put into a fit state for human habitation, so that the closing orders in their case were cancelled.

### WATER SUPPLY.

Generally throughout the district there has been a sufficient supply of water during the year.

Certain alterations and improvements have been carried out under Mr Gough's supervision, including, among others, the beaching of the slopes of Milton reservoir; the scraping of the 5in. main from the Lennoxtown reservoir to the village; and the scraping of main pipes in the Edinkiln district.

### WATER ANALYSES.

Four samples of water were taken for the purpose of analysis, and the analysts' results are shown in Table XXV.

Sample No. 1 was from a tap in the scullery at Blairquhosh, Blanehead, and proved to be quite a pure water, suitable in all respects for drinking and domestic purposes.

No. 2 was taken from a tap in the scullery of Balglas Farmhouse, in the Parish of Campsie, and was found free from contamination, but not very suitable for washing purposes owing to its hardness. The sample was also found to be slightly acid.

The third sample, from a pump well at Drumore Farm, in Killearn Parish, showed contamination to a considerable extent. The water from this source was analysed in 1921, 1922, and 1923, and on each occasion was found more or less polluted. The owners have been advised to procure another supply as soon as possible.

Analysis of the fourth sample also showed contamination, and steps are being taken to have a gravitation supply laid on from the Kirkintilloch water main, which is within a reasonable distance.

Table XXV.—WESTERN DISTRICT—WATER ANALYSES (IN GRAINS PER GALLON)—1924.

| No. | Date of Report | Where Taken.   | Mineral Matter | Organic Matter | Total Solids | Nitrates | Free Ammonia | Albuminoid Ammonia | Total Ammonia | Temporary Hardness | Permanent Hardness | Total Hardness | Colour            | Degree of Sewage Contamination |
|-----|----------------|--|----------------|----------------|--------------|----------|--------------|--------------------|---------------|--------------------|--------------------|----------------|-------------------|--------------------------------|
| 1   | 13/8/24        | Tap in Scullery at Blairquhosh, Blanehead ...          | 8.43           | .20            | 8.63         | .05      | None         | .003               | .003          | 2.74               | 3.86               | 6.60           | Almost Colourless | None                           |
| 2   | 11/11/24       | Tap in Scullery at Balglas Farm, Campsie Parish ... .. | 18.10          | .25            | 18.35        | None     | .001         | .003               | .004          | None               | 13.37              | 13.37          | Almost Colourless | None                           |
| 3   | 26/12/24       | Pump Well at Drumore Farm, Killearn ...                | 17.50          | .40            | 17.90        | 3.52     | .004         | .005               | .009          | 3.61               | 5.86               | 9.47           | Almost Colourless | 1 to 6                         |
| 4   | 29/12/24       | Well at Birdston Cottages, Campsie Parish ...          | 14.12          | .40            | 14.52        | .96      | .002         | .004               | .006          | 2.47               | 7.21               | 9.68           | Almost Colourless | 1 to 26                        |

NOTE.—Messrs Tatlock & Thomson's regular method of stating their opinion of a water as to sewage contamination is as follows:—"It may be regarded as being equal to a mixture of one part of average sewage with . . . parts of pure water which had been filtered through earth till clear." The figures in the last column of the table give the result according to this method.

## DRAINAGE.

The three Special Drainage Districts of Lennoxtown, Balfron, and Drymen have worked satisfactorily. At Lennoxtown the question of a suitable outfall for the sewers and the treatment of the effluent is under consideration by the District Committee.

During the year Mr Gough carried out 48 smoke-tests of house drainage.

## SCAVENGING.

The work of Scavenging has been very well attended to. Lennoxtown is the only Special District for this purpose, but the other villages, which are frequently inspected by the sanitary inspector, are also satisfactorily looked after.

## NUISANCES.

Mr Gough made 348 inspections for the detection of nuisances. Under the Public Health Act 58 intimations were made in terms of Section 19, but only in 4 was statutory notice required under Section 20.

## DAIRIES.

At the end of the year there were on the register 125 dairies. One hundred and thirty inspections were made by the Sanitary Inspector, and eight notices were served in connection with contraventions of the Regulations.

**Grade "A" Milk.**—Three new licences were granted for the sale of Grade A milk, making a total of four in operation at the end of the year. The names and addresses of the dairymen in the district who were licensed during the year to sell Grade A milk are as follow :—John Haddow, Broughmore, Balfron; James Laurie, Head of Balglass, Balfron; and John Paterson, Woodend, Balfron. Since the end of the year, I may add, a fifth licence has been granted.

## FACTORIES AND WORKSHOPS.

The number of inspections of factories and workshops was 25. Only one defect was discovered and was remedied after written notice was served. All the workshops—54 in number—were kept in good order, and there was no complaint of overcrowding.

## SLAUGHTER-HOUSES AND MEAT INSPECTION.

Renewal of licence was asked and granted for five private slaughter-houses, and 78 inspections were made by Mr Gough. All were found to be well conducted. In no case was it necessary to seize unsound meat at the slaughter-houses. Only in one case was it necessary to condemn food, that being in the case of a 4lb. tin of corned beef found in a shop.

**Table XXVI.—WESTERN DISTRICT.**

**RETURN OF CASES OF INFECTIOUS DISEASE NOTIFIED, &c.,  
DURING THE YEAR ENDING 31ST DECEMBER, 1924.**

| DISEASE  | NUMBER OF CASES COMING TO THE KNOWLEDGE<br>OF THE MEDICAL OFFICER OF HEALTH |              |               |                |                 |                 |                 |                |                              |  |
|--|---|--------------|---------------|----------------|-----------------|-----------------|-----------------|----------------|------------------------------|--|
|  | At all Ages   | At Age—Years |               |                |                 |                 |                 |                | Cases removed to<br>Hospital | Cases not removed to<br>Hospital   |
|  |   | Under 1 Year | 1 and under 5 | 5 and under 15 | 15 and under 25 | 25 and under 45 | 45 and under 65 | 65 and upwards |                              |  |
| A.—Diseases specified in the Infectious Disease (Notification) Act, 1889.  |   |              |               |                |                 |                 |                 |                |                              |  |
| Typhoid or Enteric Fever   | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...  |
| Typhus Fever ... ..  | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...  |
| Smallpox ... ..  | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...  |
| Scarlet Fever or Scarletina  | 24  | ...          | 5             | 18             | 1               | ...             | ...             | ...            | 23                           | 1  |
| Diphtheria and Membranous<br>Croup ... ..  | 54  | ...          | 14            | 36             | 1               | 3               | ...             | ...            | 52                           | 2  |
| Erysipelas ... ..  | 5   | ...          | ...           | 2              | 1               | ...             | 2               | ...            | 0                            | 5  |
| Puerperal Fever ... ..   | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...  |
| Cholera ... ..   | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...  |
| Relapsing Fever ... ..   | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...  |
| Continued Fever ... ..   | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | ...  |
| B.—Diseases Notifiable in terms of Regulations made under Section 78<br>of the Public Health (Scotland) Act, 1897. |   |              |               |                |                 |                 |                 |                |                              |  |
| Ophthalmia Neonatorum  | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          | Cases notified in a previous<br>year and removed to Hospital,<br>for the first time during 1924, |
| Infective Jaundice ... ..  | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          |  |
| Malaria ... ..   | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          |  |
| Dysentery ... ..   | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          |  |
| Trench Fever ... ..  | ...   | ...          | ...           | ...            | ...             | ...             | ...             | ...            | ...                          |  |
| Acute Primary Pneumonia  | 30  | 1            | 5             | 7              | 3               | 3               | 8               | 3              | 0                            | 30   |
| Acute Influenzal Pneumonia   | 2   | 1            | ...           | 1              | ...             | ...             | ...             | ...            | 1                            | 1  |
| Pulmonary Tuberculosis...  | 10  | ...          | ...           | 3              | 4               | 2               | 1               | ...            | 7                            | 3  |
| Non-Pulmonary Tuber-<br>culosis... ..  | 7   | ...          | 2             | 2              | 2               | 1               | ...             | ...            | 1                            | 6  |
| Total of A and B...  | 132   | 2            | 26            | 69             | 12              | 9               | 11              | 3              | 84                           | 48   |

*State Name of Hospital or Hospitals in which Cases were treated.*

Lennox Joint Hospital, Milton of Campsie. Ochil Hills Sanatorium, Milnathort,

*Number of Persons resident in the District as at 31st December, 1924, who were known to be suffering from Tuberculosis. (Persons in Sanatoria, &c., should be included in the figures for the area in which they have their home residence.)*

Pulmonary Tuberculosis only, ... .. 31  
Non-Pulmonary Tuberculosis only, ... .. 32  
Both Pulmonary and Non-Pulmonary Tuberculosis, ... .. 0

**Table XXVII.—WESTERN DISTRICT—CASES OF INFECTIOUS DISEASE COMING TO THE KNOWLEDGE OF THE  
MEDICAL OFFICER OF HEALTH FOR THE YEAR 1924.**

| Parish              | Smallpox | Diphtheria and<br>Membranous Group | Krysielas | Scarlet Fever | Typhus Fever | Enteric Fever | Continued Fever | Puerperal Fever | Cerebro-spinal<br>Fever | Ophthalmia<br>Neonatorum | Chickenpox | Malaria | Dysentery | Trench Fever | Acute Primary<br>Pneumonia | Acute Influenzal<br>Pneumonia | Tuberculosis |               | Total |
|---------------------|----------|------------------------------------|-----------|---------------|--------------|---------------|-----------------|-----------------|-------------------------|--------------------------|------------|---------|-----------|--------------|----------------------------|-------------------------------|--------------|---------------|-------|
|                     |          |                                    |           |               |              |               |                 |                 |                         |                          |            |         |           |              |                            |                               | Pulmonary    | Non-Pulmonary |       |
| Buchanan ...        | ...      | ...                                | ...       | 2             | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | ...                        | ...                           | ...          | ...           | ...   |
| Balfour ...         | ...      | ...                                | ...       | ...           | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | ...                        | ...                           | ...          | ...           | ...   |
| Drymen ...          | ...      | 1                                  | ...       | ...           | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | ...                        | ...                           | 1            | 3             | 5     |
| Baldernock ...      | ...      | ...                                | ...       | ...           | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | ...                        | ...                           | ...          | ...           | ...   |
| Campsie ...         | ...      | 48                                 | 5         | 8             | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | 30                         | 2                             | 8            | 4             | 105   |
| Killearn ...        | ...      | ...                                | ...       | 1             | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | ...                        | ...                           | ...          | ...           | 1     |
| Kintyre ...         | ...      | ...                                | ...       | ...           | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | ...                        | ...                           | ...          | ...           | ...   |
| Strathblane ...     | ...      | 5                                  | ...       | 13            | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | ...                        | ...                           | ...          | ...           | 18    |
| Totals ...          | ...      | 64                                 | 5         | 24            | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | 30                         | 2                             | 10           | 7             | 132   |
| Removed to Hospital | ...      | 52                                 | ...       | 23            | ...          | ...           | ...             | ...             | ...                     | ...                      | ...        | ...     | ...       | ...          | ...                        | 1                             | 7            | 1             | 84    |



## • INFECTIOUS DISEASE.

In all, 132 notifications of cases of infectious disease were received during the year, of which 24 were of scarlet fever, 54 of diphtheria, 5 of erysipelas, 32 of acute pneumonia, and 17 of tuberculosis. The total number of cases for the year is considerably higher than it has been for many years, the average number of notifications for the previous ten years being 72. The figures showing the distribution of the various diseases throughout the parishes are given in Table XXVI., while Table XXVII. is arranged to show the age-grouping of the cases.

**Scarlet Fever.**—Of the 24 cases, 13 were in the Parish of Strathblane, and of these four occurred in the Strathblane Home. Although one or two family groups were noticed, there was nothing in the nature of an epidemic. Only one death occurred.

**Diphtheria.**—This disease was very prevalent in the Parish of Campsie—chiefly in Lennoxtown—there having been 48 cases in the parish. One-half of the cases occurred in the first three months of the year, when there was a cessation until August, when two cases were notified. In September and October 12 cases were notified, and in November and December 10 cases.

Early in September, on account of the disease affecting pupils at Lennoxtown Public School, I had the throats of all the younger scholars examined, and twelve swabs were taken for bacteriological examination. Out of the twelve one was found positive, and in the circumstances the child from whom the swab had been taken was promptly removed to Lennox Hospital. From that date no more cases occurred in connection with the Public School until the middle of October, when two cases were notified from one class, and again there was a suspicion that some child or children in the school was the source of infection. The throats of all the scholars in the class in question were accordingly examined, and swabs were taken from twelve of the more suspicious looking. This time the diphtheria bacillus was found in three of the swabs. The same course was followed as on the previous occasion, the three children with the infective throats being immediately removed to hospital.

Of the total of 54 cases notified, 52 were isolated in hospital. Three of the cases proved fatal.

**Tuberculosis.** — Seventeen notifications were received, of which 10 were of cases of pulmonary tuberculosis. The total number of surviving cases of tuberculosis in the district as at

31st December was, according to my registers, 31 suffering from tuberculosis of the lungs, and 32 from non-pulmonary types of the disease, a total of 63, which is equal to one case to every 180 of population approximately.

**Whooping-Cough.** — In connection with an outbreak of whooping-cough affecting pupils attending Buchanan School, I recommended the closure of the elementary portion of the school for ten days. My recommendation was given effect to.

**Measles.**—At the end of January, I advised that Balfron School be closed for a day (a Friday) for the purpose of disinfection and cleaning in connection with an outbreak of measles. In addition, I advised the closure for the following week of the Infant and Junior Department and Class I. of the Senior Department. Formal notice for closure was accordingly given.

| Ages in Years | Disease                         | 0-5 |     | 5-10 |     | 10-20 |     | 20-30 |     | 30-40 |     | 40-50 |     | 50-60 |     | Totals |     | Total |
|---------------|---------------------------------|-----|-----|------|-----|-------|-----|-------|-----|-------|-----|-------|-----|-------|-----|--------|-----|-------|
|               |                                 | M   | F   | M    | F   | M     | F   | M     | F   | M     | F   | M     | F   | M     | F   | M      | F   |       |
|               | <i>Scarlet Fever</i> —Recovered | 19  | 21  | 11   | 22  | 8     | 15  | 2     | 4   | 1     | ... | ...   | ... | ...   | 62  | 41     | 103 | 110   |
|               | Remaining                       | 1   | 1   | 1    | ... | 1     | ... | ...   | ... | ...   | ... | ...   | ... | ...   | 1   | 3      | 4   |       |
|               | Died ...                        | ... | 2   | ...  | ... | ...   | 1   | ...   | ... | ...   | ... | ...   | ... | ...   | 3   | ...    | 3   |       |
|               | <i>Diphtheria</i> —Recovered    | 19  | 13  | 13   | 24  | 8     | 13  | ...   | 4   | 1     | ... | ...   | ... | ...   | 56  | 41     | 97  | 123   |
|               | Remaining                       | 1   | 3   | 4    | 2   | 3     | 1   | ...   | ... | ...   | ... | ...   | ... | ...   | 6   | 8      | 14  |       |
|               | Died ...                        | 6   | 6   | ...  | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | ...   | 6   | 6      | 12  |       |
|               | <i>Enteric Fever</i> —Recovered | ... | ... | ...  | ... | ...   | 1   | 1     | ... | 1     | ... | ...   | ... | ...   | 1   | 2      | 3   | ...   |
|               | Remaining                       | ... | ... | ...  | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | ...    | ... |       |
|               | Died ...                        | ... | ... | ...  | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | ...    | ... |       |
|               | <i>Phthisis</i> —Recovered      | ... | ... | 1    | 1   | ...   | 1   | 2     | ... | ...   | ... | ...   | ... | ...   | 2   | 3      | 6   | 8     |
|               | Remaining                       | ... | ... | ...  | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | 1      | 1   |       |
|               | Died ...                        | 1   | ... | ...  | ... | ...   | ... | ...   | 1   | ...   | ... | ...   | ... | ...   | 1   | 1      | 2   |       |
|               | <i>Pneumonia</i> —Recovered     | 1   | ... | ...  | ... | 1     | ... | 1     | ... | ...   | ... | 1     | ... | ...   | 1   | 3      | 4   | 6     |
|               | Remaining                       | ... | ... | ...  | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | 1      | 1   |       |
|               | Died ...                        | ... | ... | ...  | ... | 1     | 2   | ...   | ... | ...   | ... | ...   | ... | ...   | ... | 1      | 1   |       |
|               | <i>Measles</i> —Recovered       | ... | ... | ...  | ... | 1     | 2   | ...   | ... | 1     | ... | ...   | ... | ...   | 2   | 1      | 4   | ...   |
|               | Remaining                       | ... | ... | ...  | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | ...    | ... |       |
|               | Died ...                        | ... | ... | ...  | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | ...    | ... |       |
|               | <i>Erysipelas</i> —Recovered    | ... | ... | ...  | ... | ...   | ... | ...   | ... | ...   | 2   | ...   | ... | ...   | 2   | ...    | 2   | ...   |
|               | Remaining                       | ... | ... | ...  | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | ...    | ... |       |
|               | Died ...                        | ... | ... | ...  | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | ...   | ... | ...    | ... |       |
| Totals ...    | ...                             | 48  | 46  | 30   | 49  | 23    | 34  | 6     | 9   | 4     | 4   | 2     | 1   | ...   | 143 | 113    | 256 |       |

## LENNOX JOINT HOSPITAL, 1924.

The total admissions to this hospital during the year amounted to 256 patients. Of that total 66 were from East Dumbartonshire, 88 from West Stirlingshire, 102 from Kirkintilloch (Burgh).

Of the 66 cases from East Dumbartonshire, 47 were scarlet fever, 13 diphtheria, 2 enteric fever, 1 phthisis, 1 measles, 2 pneumonia.

Of the 88 cases from West Stirlingshire, 24 were scarlet fever, 53 diphtheria, 6 phthisis, 3 measles, 2 pneumonia.

Of the 102 cases from Kirkintilloch, 39 were scarlet fever, 57 diphtheria, 1 enteric fever, 1 phthisis, 2 pneumonia, 2 erysipelas.

Of the 110 cases of scarlet fever, 102 recovered, 3 died, 5 remained under treatment.

Of the 123 cases of diphtheria, 97 recovered, 12 died, 14 remained under treatment.

Of the 3 cases of enteric fever, 3 recovered.

Of the 8 cases of phthisis, 4 recovered, 2 died, 1 remained under treatment, 1 improved (transferred to sanatorium).

Of the 4 cases of measles, 4 recovered.

Of the 6 cases of pneumonia, 4 recovered, 1 died, 1 remained under treatment.

Of the 2 cases of erysipelas, 2 recovered.

At the end of the year 1923 there were 14 patients in the wards:—4 scarlet fever, 3 diphtheria, 6 phthisis, 1 measles. All recovered but one phthisis.

Of the 109 cases of scarlet fever treated to a termination, 3 died.

Of the 112 cases of diphtheria treated to a termination, 12 died.

Of the 11 cases of phthisis treated to a termination, 3 died, 5 were discharged, 3 remained under treatment.

At the end of the year 1924 the total length of residence of the 24 patients in the wards was 1401 days, and up to the end of the year 1923 the length of residence of the 14 patients was 807 days. Adding the former and deducting the latter

**Table XXIX.—WESTERN DISTRICT. BIRTHS, MARRIAGES, AND DEATHS  
DURING THE YEAR 1924.**

Principal Rates per 1000 of Estimated Population.

|   | Numbers<br>Registered<br>in<br>District | Transfers |     | Corrected Number |                       |
|---|---|-----------|-----|------------------|-----------------------|
|   |   | Out       | In  | Both<br>Sexes    | Both<br>Males Females |
| Total Births (including<br>Illegitimate Births) | 172                                     | 6         | 14  | 180              | 106 74                |
| Illegitimate Births                             | 11                                      | ...       | 4   | 15               | 10 5                  |
| Marriages                                       | 64                                      | ...       | ... | ...              | ...                   |
| Deaths  | 160                                     | 18        | 21  | 163              | 80 83                 |

|   | Uncorrected | Corrected for<br>Transfers | Corrected for Transfers<br>and adjusted for<br>Age and Sex<br>Distribution |
|---|-------------|----------------------------|--|
| Birth-rate  | 15.1        | 15.8                       | ...  |
| Illegitimate Birth-rate per 100                                     | ...         | ...                        | ...  |
| Total Births  | 5.6         | 8.3                        | ...  |
| Marriage-rate   | 14.0        | ...                        | 13.1   |
| Death-rate—All Causes   | ...         | 14.3                       | ...  |
| Do. —All Tuberculosis   | ...         | 0.79                       | ...  |
| Do. —Tuberculosis of Res-<br>piratory System...                     | ...         | 0.44                       | ...  |
| Do. —Principal Epidemic<br>Diseases (asterisked below)              | ...         | 0.61                       | ...  |
| Infantile Mortality Rate (Deaths<br>under One Year per 1000 Births) | ...         | 94                         | ...  |

CAUSES OF DEATH (corrected for Transfers).

| Causes of Death.   | All Ages.      |        |          | Age. |     |     |     |     |     |     |     |     |     |     |                |
|--|----------------|--------|----------|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------|
|  | Both<br>Sexes. | Males. | Females. | —1   | 1—  | 5—  | 10  | 15— | 25— | 35— | 45— | 55— | 65— | 75— | 85<br>and over |
| *Enteric Fever   | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Typhus Fever   | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Smallpox   | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| *Measles   | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| *Scarlet Fever   | 1              | 1      | 1        | ...  | 1   | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| *Whooping-Cough  | 2              | 1      | 1        | 2    | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| *Diphtheria  | 3              | 1      | 2        | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Influenza  | 16             | 5      | 11       | ...  | ... | ... | ... | ... | ... | 1   | 1   | 3   | 6   | 5   | ...            |
| Encephalitis Lethargica  | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Cerebro-spinal Meningitis                                      | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Other Epidemic Diseases  | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Tuberculosis of Respiratory System                             | 5              | 4      | 1        | ...  | ... | ... | ... | 1   | 2   | ... | 1   | ... | ... | ... | ...            |
| Tuberculous Meningitis   | 2              | 2      | ...      | ...  | ... | ... | 1   | ... | ... | ... | ... | ... | ... | ... | ...            |
| Tuberculosis of Intestines and Peritoneum                      | 1              | 1      | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Other Tuberculous Diseases                                     | 1              | 1      | ...      | ...  | ... | ... | 1   | ... | ... | ... | 3   | 4   | 6   | 2   | ...            |
| Malignant Tumours  | 16             | 9      | 7        | ...  | 1   | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Rheumatic Fever  | 1              | ...    | 1        | ...  | ... | ... | ... | ... | ... | ... | ... | ... | 1   | ... | ...            |
| Meningitis (not Cer. Spin. or Tuberc.)                         | 1              | 1      | ...      | ...  | ... | ... | 1   | ... | ... | ... | ... | ... | ... | ... | ...            |
| Apoplexy   | 16             | 8      | 8        | ...  | ... | ... | ... | ... | ... | 1   | ... | ... | 6   | 1   | ...            |
| Heart Disease  | 10             | 6      | 4        | ...  | ... | ... | ... | ... | ... | 1   | ... | ... | 3   | 4   | ...            |
| Diseases of Arteries   | 1              | 1      | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Bronchitis   | 7              | 2      | 5        | 1    | ... | ... | ... | ... | ... | ... | 1   | 2   | 1   | 1   | ...            |
| Pneumonia (all forms)  | 12             | 7      | 5        | 3    | 1   | ... | ... | 1   | 1   | 1   | 2   | 2   | 1   | 1   | ...            |
| Other Diseases of Respiratory System                           | 3              | 1      | 2        | ...  | ... | ... | ... | ... | ... | ... | 1   | ... | ... | ... | ...            |
| *Diarrhoea and Enteritis (under 2 years)                       | 1              | ...    | 1        | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Appendicitis   | 2              | 2      | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| All Diseases of Liver (not Malignant)                          | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Nephritis, Acute and Chronic                                   | 7              | 2      | 5        | ...  | ... | ... | ... | ... | 1   | 1   | 2   | 1   | 1   | ... | ...            |
| Puerperal Sepsis   | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Other Diseases and Accidents of Preg-<br>nancy and Parturition | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Dis. of Early Infancy, and Malformations                       | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Suicide  | ...            | ...    | ...      | ...  | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...            |
| Other Violent Deaths   | 10             | 3      | 7        | ...  | 1   | ... | ... | 1   | ... | ... | ... | ... | 5   | 2   | ...            |
| Other Defined Diseases   | 33             | 14     | 19       | 2    | 1   | ... | ... | ... | ... | 1   | 1   | 4   | 3   | 11  | 10             |
| Causes Ill-defined or unknown                                  | 3              | 2      | 1        | ...  | ... | ... | ... | ... | ... | ... | ... | 2   | 1   | ... | ...            |
| All Causes,  | 163            | 80     | 83       | 17   | 9   | 1   | 3   | 4   | 4   | 6   | 12  | 25  | 35  | 33  | 14             |





gives a total of 7462 days. Average number of patients throughout the year was 20.4 patients. Average length of residence was 29.4 days. The total length of residence of the 110 cases of scarlet fever was 4123 days, giving an average of 37.4 days. The total length of residence of the 123 cases of diphtheria was 2421 days, giving an average of 19.6 days. The total length of residence of the 3 cases of enteric fever was 155 days, giving an average of 51.6 days. The total length of residence of the 8 cases of phthisis was 756 days, giving an average of 94.5 days. The total length of residence of the 6 cases of pneumonia was 100 days, giving an average of 16.4 days. The total length of residence of the 4 cases of measles was 44 days, giving an average of 11 days. The total length of residence of the 2 cases of erysipelas was 28 days, giving an average of 14 days.

There were 4 cases outside the primary area :—2 scarlet fever, 1 phthisis, 1 diphtheria.

### VITAL STATISTICS.

The population of the district, as estimated by the Registrar-General is 11,406.

The number of births in the district, corrected for transfers, was 180, of which 106 were of males and 74 of females. This gives a birth rate of 15.8 per 1000 of population, which is a very low rate, even for the Western District, the average rate for the previous five years being 17.3. For the Landward part of the County as a whole the rate for 1924 was 23.7.

The deaths numbered 163, giving a death rate of 14.3, which is the highest death rate recorded since 1918 and 1919, when very similar rates were recorded.

The number of deaths from tuberculosis was 9, giving a death rate of 0.79 per 1000, of which 0.44 was due to tuberculosis of the respiratory system. From the "Principal Epidemic Diseases," i.e., the diseases asterisked in Table XXIX., the death rate was 0.61, the actual number of deaths being : — from scarlet fever, 1; from whooping-cough, 2; from diphtheria, 3; and from diarrhoea and enteritis (under 2 years), 1. The figure for infantile mortality (deaths under one year per 1000 births), was 94.

## BURGH OF BRIDGE OF ALLAN.

## VITAL STATISTICS.

**Population.**—The population of the burgh, according to the estimate of the Registrar-General, is 3578. As this estimate is based on the Census of 1921, when there was a military population of some 600 included, the population now is probably about 3100.

**Births and Birth Rates.**—Forty-two births were registered. One was transferred to the district of another authority, while two births which occurred elsewhere were credited to the Burgh, so that the birth rate, adjusted for transfers, was 12.0 per 1000 of estimated population. If that rate were based on my own estimate of 3100, it would be 13.9.

**Deaths and Death Rates.**—The number of deaths from all causes, after adjustment for transfers, was 47, giving a death rate of 13.1 per 1000, but if the modified estimate of population be taken that rate would become 15.1 per 1000, so that the death rate exceeded the birth rate by about one per 1000. Bridge of Allan's population, of course, like that of similar spas, is largely recruited from other areas by persons who come to the town in search of health, many of whom are well on in years, so that, as will be seen from Table (I.) no less than 62 per cent. of the deaths were of people of 65 years and upwards.

From tuberculosis there was not a single death, while from the Principal Epidemic Diseases the death rate was 0.28 per 1000, which represents one death, due to whooping-cough.

Four deaths occurred among children under one year old, which gives an infantile mortality rate of 93 per 1000 births.

## INFECTIOUS DISEASE.

Only nine cases of infectious disease were notified during the year. This number compares very favourably with previous years, there having been 18 notified in 1923, 11 in 1922, and 27 in 1921. For the past ten years, 1914-23, the average annual number of notifications (exclusive of chicken-pox) was 21. There were no special circumstances to record with regard to tuberculosis, only one—a non-pulmonary case—was notified, and the total number of persons known to be suffering from tuberculosis as at 31st December, was 22, of whom 10 were suffering from pulmonary tuberculosis or consumption.

**Table (1).—BURGH OF BRIDGE OF ALLAN. BIRTHS, MARRIAGES, AND DEATHS  
DURING THE YEAR 1924.**

| Principal Rates per 1000 of Estimated Population. |                                |           |     |   |
|---|--------------------------------|-----------|-----|---|
|   | Numbers Registered in District | Transfers |     | Corrected for Transfers and adjusted for Age and Sex Distribution |
|   |                                | Out       | In  |   |
| Total Births (including Illegitimate)             | 42                             | 1         | 2   | 43  |
| Illegitimate Births                               | ...                            | ...       | ... | ...   |
| Marriages   | 15                             | ...       | ... | ...   |
| Deaths  | 48                             | 7         | 6   | 47  |

| Principal Rates per 1000 of Estimated Population.                 |            |  |               |                       |
|---|------------|--|---------------|-----------------------|
|   | Birth-rate | Illegitimate Birth-rate per 100 Total Births | Marriage rate | Death-rate—All Causes |
|   |            |  |               |                       |
| Do. — All Tuberculosis  | ...        | ...  | ...           | ...                   |
| Do. — Tuberculosis of Respiratory System                          | ...        | ...  | ...           | ...                   |
| Do. — Principal Epidemic Diseases (asterisked below)              | ...        | ...  | ...           | ...                   |
| Infantile Mortality Rate (Deaths under one Year per 1000 Births), | ...        | ...  | ...           | ...                   |

**CAUSES OF DEATH (corrected for Transfers).**

| Causes of Death.  | All Ages.   |        | Age.     |     |     |     |     |     |     |     |     |     |     |     |              |
|---|-------------|--------|----------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------|
|   | Both Sexes. | Males. | Females. | —1  | 1—  | 5—  | 10— | 15— | 25— | 35— | 45— | 55— | 65— | 75— | 85 and over. |
| *Enteric Fever  | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Typhus Fever  | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Smallpox  | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| *Measles  | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| *Scarlet Fever  | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| *Whooping-Cough   | 1           | ...    | 1        | 1   | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| *Diphtheria   | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Influenza   | 5           | 4      | 1        | 1   | 1   | ... | ... | ... | 1   | 2   | ... | ... | ... | ... | ...          |
| Encephalitis Lethargica                                   | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Cerebro spinal Meningitis                                 | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Other Epidemic Diseases                                   | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Tuberculosis of Respiratory System                        | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Tuberculous Meningitis                                    | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Tuberculosis of Intestines and Peritoneum                 | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Other Tuberculous Disease                                 | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Malignant Tumours   | 4           | 2      | 2        | ... | ... | ... | ... | ... | ... | ... | ... | ... | 2   | 2   | ...          |
| Rheumatic Fever   | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Meningitis (not Cer. Spin. or Tubere )                    | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Apoplexy  | 5           | 3      | 2        | ... | ... | ... | ... | ... | ... | ... | ... | 1   | 2   | 2   | ...          |
| Heart Disease   | 5           | 4      | 1        | ... | ... | ... | ... | ... | ... | ... | ... | 2   | 1   | 1   | 1            |
| Diseases of Arteries                                      | 3           | 3      | ...      | ... | ... | ... | ... | ... | ... | ... | 1   | ... | 1   | 1   | ...          |
| Bronchitis  | 1           | 1      | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Pneumonia (all forms)                                     | 4           | 1      | 3        | 1   | ... | ... | ... | ... | ... | ... | ... | 1   | ... | 2   | 1            |
| Other Diseases of Respiratory System                      | 1           | 1      | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | 1   | ...          |
| *Diarrhea and Enteritis (under 2 years)                   | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Appendicitis  | 1           | ...    | 1        | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| All Diseases of Liver (not Malignant)                     | 1           | ...    | 1        | ... | ... | ... | ... | ... | ... | ... | 1   | ... | ... | ... | ...          |
| Nephritis (Acute and Chronic)                             | 1           | 1      | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Puerperal Sepsis  | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Other Diseases and Accidents of Pregnancy and Parturition | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Dis. of Early Infancy and Malformations                   | 1           | ...    | 1        | 1   | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Suicide   | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Other Violent Deaths                                      | 2           | 1      | 1        | ... | 1   | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| Other Defined Diseases                                    | 12          | 4      | 8        | ... | ... | ... | ... | ... | ... | 1   | 1   | 1   | 2   | 6   | 1            |
| Causes Ill-defined or Unknown                             | ...         | ...    | ...      | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... | ...          |
| All Causes  | 47          | 25     | 22       | 4   | ... | 2   | ... | ... | 1   | 3   | 3   | 5   | 9   | 17  | 3            |



## WATER SUPPLY.

As mentioned in my last Annual Report, the extensive operations at the waterworks were completed at the end of June, 1924, and the capacity of the reservoir is now just about twice what it used to be. Bridge of Allan, therefore, has now an abundant supply of excellent water, which will be found more than sufficient for its needs for many years.

## VACCINATION (SCOTLAND) ACT, 1907.

From the Registrar's returns I find that four persons availed themselves of the provisions of the above Act by which persons with conscientious scruples may object to the protection of their children against smallpox. Fortunately, compared with other parts of the County, the proportion of such objectors in the Burgh is small.

## SLAUGHTER-HOUSE AND MEAT INSPECTION.

As usual, the slaughter-house in the Burgh has been well conducted throughout the year. At the periodical inspections by Mr Blackadder, he found no cause for complaint. The total number of animals slaughtered was 679, consisting of 80 oxen, 10 calves, 219 sheep, and 370 pigs.

## FOOD AND DRUGS ACTS.

Under the Food and Drugs Acts, 17 samples were procured for analysis. Of these, 13 were samples of sweet milk, and 4 were samples of whisky. Four of the samples of sweet milk were certified as not genuine, but no prosecution was undertaken.

## FACTORY AND WORKSHOP ACT.

The number of factories in the Burgh is the same as last year, namely, 3, and the number of workshops, 29. In all, 47 inspections were made, 12 of factories and 35 of workshops. No defects were found.

**Table (2).—BURGH OF BRIDGE OF ALLAN.**

**RETURN OF CASES OF INFECTIOUS DISEASE NOTIFIED, &c.  
DURING THE YEAR ENDING 31ST DECEMBER, 1924.**

| DISEASE | NUMBER OF CASES COMING TO THE KNOWLEDGE<br>OF THE MEDICAL OFFICER OF HEALTH |              |               |                |                 |                 |                 |                |                              |
|---------|---|--------------|---------------|----------------|-----------------|-----------------|-----------------|----------------|------------------------------|
|         | At all Ages   | At Age—Years |               |                |                 |                 |                 |                | Cases removed to<br>Hospital |
|         |   | Under 1 Year | 1 and under 5 | 5 and under 15 | 15 and under 25 | 25 and under 45 | 45 and under 65 | 65 and upwards |                              |

**A.—Diseases specified in the Infectious Disease (Notification) Act, 1889.**

|                                    |     |     |     |     |     |     |     |     |     |
|------------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Typhoid or Enteric Fever           | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Typhus Fever                       | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Smallpox                           | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Scarlet Fever or Scarletina        | 5   | ... | 2   | 1   | 2   | ... | ... | ... | 3   |
| Diphtheria and Membranous<br>Croup | 2   | ... | ... | 1   | 1   | ... | ... | ... | 2   |
| Erysipelas                         | 1   | ... | ... | ... | ... | ... | 1   | ... | 1   |
| Puerperal Fever                    | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Cholera                            | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Relapsing Fever                    | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Continued Fever                    | ... | ... | ... | ... | ... | ... | ... | ... | ... |

**B.—Diseases Notifiable in terms of Regulations made under Section 78  
of the Public Health (Scotland) Act, 1897.**

|                            |     |     |     |     |     |     |     |     |     |
|----------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ophthalmia Neonatorum      | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Infective Jaundice         | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Malaria                    | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Dysentery                  | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Trench Fever               | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Acute Primary Pneumonia    | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Acute Influenzal Pneumonia | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Pulmonary Tuberculosis     | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Non-Pulmonary Tuberculosis | 1   | ... | ... | ... | 1   | ... | ... | ... | 1   |
| Total of A and B           | 9   | ... | 2   | 2   | 4   | ... | 1   | ... | 6   |

*State Name of Hospital or Hospitals in which Cases were treated.*  
Combination Hospital, Stirling.

*Number of Persons resident in the District as at 31st December, 1924, who were known to be suffering from Tuberculosis. (Persons in Sanatoria, &c., should be included in the figures for the area in which they have their home residence.)*

Pulmonary Tuberculosis only, ... 10  
Non-Pulmonary Tuberculosis only, ... 12  
Both Pulmonary and Non-Pulmonary Tuberculosis, ...



**Table (3).—BURGH OF DENNY AND DUNIPACE. BIRTHS, MARRIAGES, AND DEATHS DURING THE YEAR 1924.**

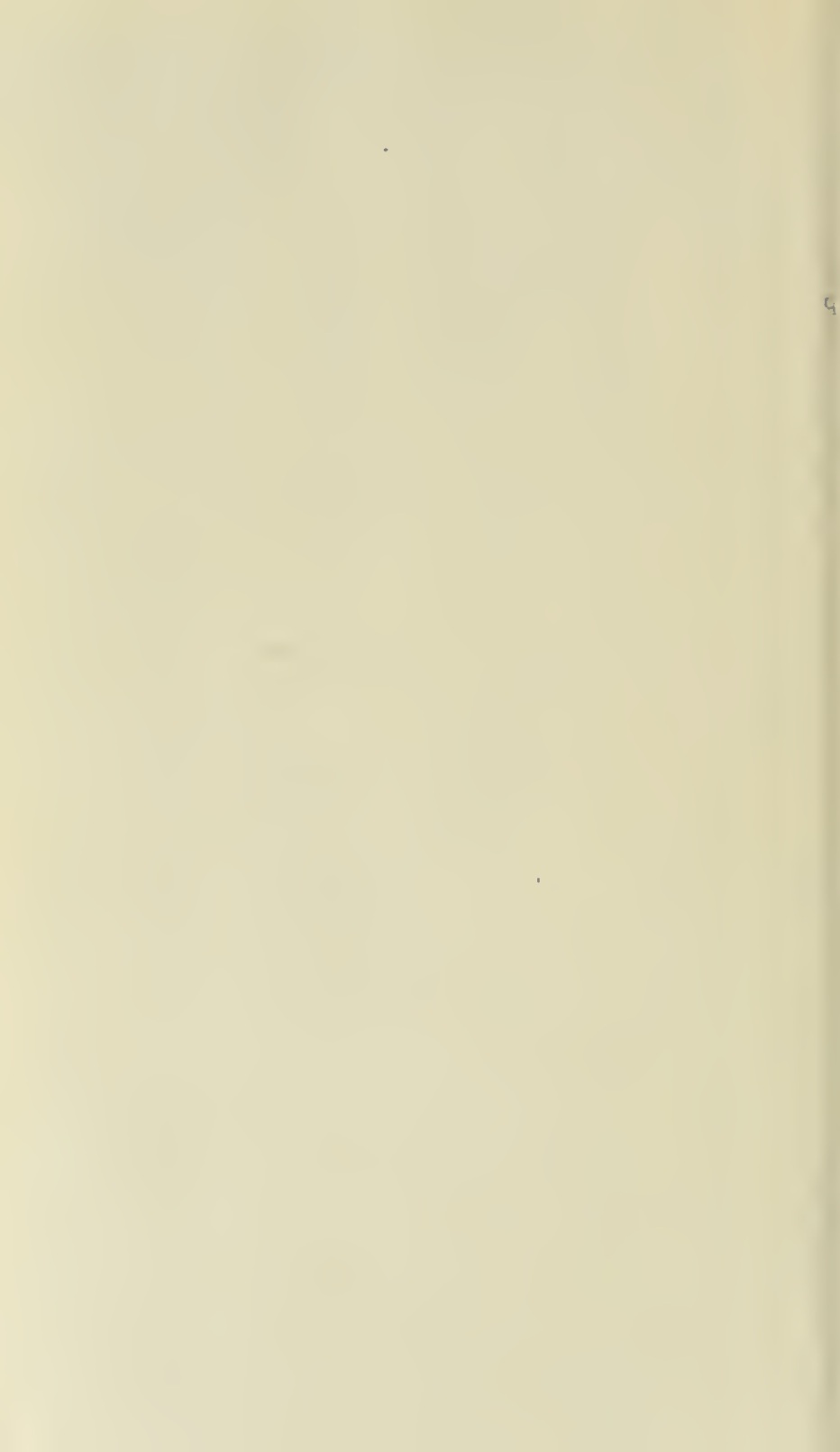
|                                       | Numbers Registered in District | Transfers |    | Corrected Number |               |
|---------------------------------------|--------------------------------|-----------|----|------------------|---------------|
|                                       |                                | Out       | In | Both Sexes       | Males Females |
| Total Births (including Illegitimate) | 128                            | 4         | 6  | 130              | 74 56         |
| Illegitimate Births                   | 5                              | 1         | 1  | 5                | 2 3           |
| Marriages                             | 18                             | ..        | .. | ..               | ..            |
| Deaths ...                            | 69                             | 2         | 10 | 77               | 34 43         |

Principal Rates per 1000 of Estimated Population.

|  | Uncorrected | Corrected for Transfers | Corrected for Transfers and adjusted for Age and Sex Distribution |
|--|-------------|-------------------------|---|
| Birth-rate ...   | 25·9        | 26·3                    | ...   |
| Illegitimate Birth-rate per 100                                  | ...         | 3·8                     | ...   |
| Total Births ...   | 3·6         | 15·6                    | 17·5  |
| Marriage-rate  | 14·0        | 1·01                    | ...   |
| Death-rate—All Causes ...  | ...         | 0·00                    | ...   |
| Do. —All Tuberculosis ...  | ...         | 0·41                    | ...   |
| Do. —Tuberculosis of Respiratory System...                       | ...         | 108                     | ...   |
| Do. —Principal Epidemic Diseases (asterisked below)              | ...         | ...                     | ...   |
| Infantile Mortality Rate (Deaths under One Year per 1000 Births) | ...         | ...                     | ...   |

CAUSES OF DEATH (corrected for Transfers).

| Causes of Death.  | All Ages.   |        |          | Age. |     |     |     |      |      |      |      |      |      |      |             |
|---|-------------|--------|----------|------|-----|-----|-----|------|------|------|------|------|------|------|-------------|
|   | Both Sexes. | Males. | Females. | --1  | 1-- | 5-- | 10  | 15-- | 25-- | 35-- | 45-- | 55-- | 65-- | 75-- | 85 and over |
| *Enteric Fever  | ...         | ...    | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Typhus Fever  | ...         | ...    | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Smallpox  | ...         | ...    | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| *Measles  | ...         | ...    | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| *Scarlet Fever  | ...         | ...    | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| *Whooping-Cough   | ...         | ...    | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| *Diphtheria   | ...         | ...    | ...      | ...  | 1   | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Influenza   | ...         | ...    | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Encephalitis Lethargica                                   | ...         | 1      | ...      | ...  | ... | ... | ... | 1    | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Cerebro-spinal Meningitis                                 | ...         | ...    | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Other Epidemic Diseases                                   | ...         | ...    | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Tuberculosis of Respiratory System                        | ...         | ...    | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Tuberculous Meningitis                                    | ...         | 1      | ...      | ...  | 1   | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Tuberculosis of Intestines and Peritoneum                 | ...         | 2      | ...      | ...  | 1   | ... | ... | ...  | ...  | ...  | 1    | ...  | ...  | ...  | ...         |
| Other Tuberculous Diseases                                | ...         | 1      | ...      | ...  | 1   | ... | ... | ...  | 1    | ...  | ...  | ...  | ...  | ...  | ...         |
| Malignant Tumours   | ...         | 3      | ...      | ...  | ... | ... | ... | ...  | ...  | 1    | ...  | ...  | ...  | ...  | ...         |
| Rheumatic Fever   | ...         | ...    | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Meningitis (not Cer. Spin. or Tuberc.)                    | ...         | ...    | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Apoplexy  | ...         | 12     | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | 1    | ...  | ...  | 3    | 2           |
| Heart Disease   | ...         | 8      | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | 1    | ...  | ...  | 4    | ...         |
| Diseases of Arteries                                      | ...         | ...    | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Bronchitis  | ...         | 2      | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Pneumonia (all forms)                                     | ...         | ...    | ...      | ...  | 2   | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | 2    | ...         |
| Other Diseases of Respiratory System                      | ...         | 1      | ...      | ...  | ... | ... | ... | ...  | ...  | 1    | ...  | ...  | ...  | 1    | ...         |
| *Diarrhoea and Enteritis (under 2 years)                  | ...         | 1      | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Appendicitis  | ...         | 2      | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | 1    | ...  | ...  | ...  | ...         |
| All Diseases of Liver (not Malignant)                     | ...         | 1      | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Nephritis, Acute and Chronic                              | ...         | 2      | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Puerperal Sepsis  | ...         | ...    | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Other Diseases and Accidents of Pregnancy and Parturition | ...         | ...    | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Dis. of Early Infancy, and Malformations                  | ...         | 1      | ...      | ...  | ... | ... | ... | ...  | 1    | ...  | ...  | ...  | ...  | ...  | ...         |
| Suicide   | ...         | 12     | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Other Violent Deaths                                      | ...         | 3      | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | ...  | ...         |
| Other Defined Diseases                                    | ...         | 13     | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | 1    | ...  | ...  | 3    | 3           |
| Causes Ill-defined or unknown                             | ...         | 1      | ...      | ...  | ... | ... | ... | ...  | ...  | ...  | ...  | ...  | ...  | 1    | ...         |
| All Causes, ...   | 77          | 34     | 43       | 14   | 5   | ... | ... | 5    | 3    | 4    | 5    | 12   | 10   | 14   | 5           |



## BURGH OF DENNY AND DUNIPACE.

## VITAL STATISTICS.

**Population.**—As estimated by the Registrar-General, the population of the Burgh at the middle of the year was 4934. This figure, however, is evidently an under-estimate, as the local census gives the population as 5416, of which 2809 are males and 2607 females.

**Births and Birth Rates.**—The total number of births, after adjustment for transfers, was 130, giving a birth rate of 26.3 per 1000 of population. The average rate for the past six years was 29.6 which, I think, will be found to be one of the highest average birth rates in Scotland for that period.

**Deaths and Death Rates.**—The number of deaths registered was 69, but after correction for transfers to and from the Burgh, the net number of deaths credited to the town was 77. This gives a death rate of 15.6, which is rather higher than usual, the average rate for the past eleven years being 13.8. The death rate from pulmonary tuberculosis was nil, not a single death from phthisis having occurred, while the deaths from other forms of tuberculosis numbered 5, equal to a death rate of 1.01 per 1000. Only two deaths occurred in the group "Principal Epidemic Diseases," one from diphtheria and one from diarrhoea and enteritis, giving a rate of 0.41. The infantile mortality, or deaths under one year per 1000 births, was 108. Table (3) gives the details.

The foregoing rates, I may say, are based on the Registrar-General's figure for population, and not on the local estimate. If the local estimate were taken the various rates would be very slightly reduced.

## HOUSING.

I stated in my Report for the year 1923 that 84 houses were in course of completion at the Anderson Street site. These are now all finished and occupied. Under the Housing Act of 1924 a further instalment of 24 houses are in course of erection at Bankend, Dunipace. Eight of these are of three apartments, and 16 of two apartments. As the necessity for more houses still continued, the Town Council decided to build other 40 houses of three and four apartments.

Since the end of the year a resumption has been made of the work with regard to repair of existing houses. Notices

**Table (4).—BURGH OF DENNY AND DUNIPACE.**  
**RETURN OF CASES OF INFECTIOUS DISEASE NOTIFIED, &c.**  
**DURING THE YEAR ENDING 31ST DECEMBER, 1924.**

| DISEASE | NUMBER OF CASES COMING TO THE KNOWLEDGE OF THE MEDICAL OFFICER OF HEALTH |              |               |                |                 |                 |                 |                |                           |                               |
|---------|--|--------------|---------------|----------------|-----------------|-----------------|-----------------|----------------|---------------------------|-------------------------------|
|         | At all Ages  | At Age—Years |               |                |                 |                 |                 |                | Cases removed to Hospital | Cases not removed to Hospital |
|         |  | Under 1 Year | 1 and under 5 | 5 and under 15 | 15 and under 25 | 25 and under 45 | 45 and under 65 | 65 and upwards |                           |                               |

**A.—Diseases specified in the Infectious Disease (Notification) Act, 1889.**

|                                 |     |     |     |     |     |     |     |     |     |     |
|---------------------------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Typhoid or Enteric Fever        | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Typhus Fever                    | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Smallpox                        | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Scarlet Fever or Scarlatina     | 21  | 2   | 6   | 12  | 1   | ... | ... | ... | 21  | ... |
| Diphtheria and Membranous Croup | 7   | 1   | 1   | 3   | 2   | ... | ... | ... | 7   | ... |
| Erysipelas                      | 9   | ... | 1   | ... | ... | 2   | 5   | 1   | 1   | 8   |
| Puerperal Fever                 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Cholera                         | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Relapsing Fever                 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |
| Continued Fever                 | ... | ... | ... | ... | ... | ... | ... | ... | ... | ... |

**B.—Diseases Notifiable in terms of Regulations made under Section 78 of the Public Health (Scotland) Act, 1897.**

|                            |           |          |           |           |          |          |          |          |           |           |
|----------------------------|-----------|----------|-----------|-----------|----------|----------|----------|----------|-----------|-----------|
| Ophthalmia Neonatorum      | ...       | ...      | ...       | ...       | ...      | ...      | ...      | ...      | ...       | ...       |
| Infective Jaundice         | ...       | ...      | ...       | ...       | ...      | ...      | ...      | ...      | ...       | ...       |
| Malaria                    | ...       | ...      | ...       | ...       | ...      | ...      | ...      | ...      | ...       | ...       |
| Dysentery                  | ...       | ...      | ...       | ...       | ...      | ...      | ...      | ...      | ...       | ...       |
| Trench Fever               | ...       | ...      | ...       | ...       | ...      | ...      | ...      | ...      | ...       | ...       |
| Acute Primary Pneumonia    | 5         | ...      | 2         | ...       | ...      | 2        | 1        | ...      | 1         | 4         |
| Acute Influenzal Pneumonia | ...       | ...      | ...       | ...       | ...      | ...      | ...      | ...      | ...       | ...       |
| Pulmonary Tuberculosis     | 7         | ...      | 1         | 2         | ...      | 2        | 2        | ...      | 4         | 3         |
| Non-Pulmonary Tuberculosis | 6         | ...      | 4         | 2         | ...      | ...      | ...      | ...      | 1         | 5         |
| <b>Total of A and B</b>    | <b>55</b> | <b>3</b> | <b>15</b> | <b>19</b> | <b>3</b> | <b>6</b> | <b>8</b> | <b>1</b> | <b>35</b> | <b>20</b> |

*State Name of Hospital or Hospitals in which Cases were treated.*  
 Bannockburn Hospital and Ochil Hills Sanatorium.

*Number of Persons resident in the District as at 31st December, 1924, who were known to be suffering from Tuberculosis. (Persons in Sanatoria, &c., should be included in the figures for the area in which they have their home residence.)*

Pulmonary Tuberculosis only, ... 23  
 Non-Pulmonary Tuberculosis only, ... 23  
 Both Pulmonary and Non-Pulmonary Tuberculosis, ... 2

have been served on the proprietors of 29 houses, and at the time of writing 12 of the houses have been repaired and provided with proper washhouse and water-closet accommodation.

## INFECTIOUS DISEASE.

The number of notifications of infectious disease received during the year was 55, which is 22 more than in the previous year, and 17 more than in 1922. Scarlet fever accounted for 21 of the cases. Of these 12 were of school age, and 8 were under school age. All 21 were removed to hospital and all recovered. Seven of the notifications were of diphtheria, two of the cases being under five years. All the cases were treated in hospital. One death occurred. The number of cases of tuberculosis notified was 13, of which 7 were pulmonary cases. The number of known surviving cases of tuberculosis as at 31st December was 48, of which 23 were pulmonary, 23 non-pulmonary, and 2 were infected with both types of the disease. During 1924, nine persons suffering from pulmonary tuberculosis were treated in sanatoria, and several non-pulmonary cases were treated in the Stirling and Falkirk Infirmarys. Table (4) gives details of the various diseases classified under different age groups.

## WATER SUPPLY.

The new supplementary water supply from the Stirling and Falkirk Water Board's Works was turned on in May of the present year. Mr Cook reports that house-to-house inspections were made with a view to preventing waste of water, which continues to be very considerable. No less than 122 leakages were discovered and remedied.

## FACTORY AND WORKSHOP ACT.

Thirty-six inspections were made under the above Act, 16 of which were of factories and 20 of workshops. One defect was found, and was remedied without the need for written notice. The total number of workshops on the register as at 31st December was 21, with 24 workrooms. Three of the workshops (tailors) employed both sexes; 15 employed males only; and 3, females only. The total number of people employed was 49, of whom 11 were females and 14 were young persons.



### VACCINATION (SCOTLAND) ACT.

Under this Act the number of declarations of conscientious objection to vaccination according to the Registrar's returns was 53, which is equal to about 41 per cent. of the children born during the year.

### COMMON LODGING-HOUSES.

Mr Cook reports that the three common lodging-houses in the Burgh have been kept in a cleanly and satisfactory manner, but that owing to want of employment there has been small demand for such lodging accommodation.

### SLAUGHTER-HOUSES AND MEAT INSPECTION.

At the public slaughter-house there have been killed during the year 523 oxen, 8 bulls, 29 cows, 27 calves, 226 sheep, 237 lambs, 1301 pigs—a total of 2251 animals. The amount of meat condemned was 245 lbs., the animals so condemned being three sheep and one pig. The slaughter-house is under the care of a superintendent, who is always in attendance.

### DAIRIES, COWSHEDS AND MILKSHOPS.

Dairy premises in the Burgh were frequently visited by the Sanitary Inspector, and were invariably found in a satisfactory state. The number of dairymen on the register as at 31st December was 15, and 4 purveyors of milk. Eleven of the 15 dairymen are wholesale dealers, and 4 are retail dealers. All the cows in the Burgh were examined by the Veterinary Inspector, who was able to certify that none of them had tuberculosis of the udder.